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## Original Articles

### OBLIGATIONS OF THE STATE TO CONSERVE LIFE AND HEALTH.\*

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I take this first opportunity to thank the Society for the very great honor conferred on me by an election to preside over its affairs for a year.

The good will of patients though inspired by gratitude for service is a pleasure, the partiality of friends is natural, and though not always unbiased is gratifying, but the confidence of one's fellow-workers is a satisfaction beyond price.

To be chosen without a competitor to succeed the long line of eminent physicians, who have filled this position with distinguished ability, is an honor I fully appreciate.

To assist in maintaining the high standard already achieved in the history of the Society and carrying it forward is an ambition worthy our best efforts.

I suggested that the program should make provision for the introduction of the President-elect, that he might make acknowledgements to the session at which he is elected.

You will learn through the House of Delegates, the Council, the Secretary-Treasurer and reports of Special Committees, much of the detail of the work of the Society during the year.

The duties of your presiding officer have been lessened by the systematic distribution of work by the present plan, by the work done by the Council, and by the efficient Secretary, who has labored with a zeal and devotion worthy all praise.

The work of reorganization so successfully carried forward under the administrations of the immediately preceding two years, left but a few counties not yet organized as branches.

Two new County Society organizations have been made and some additions to those already organized. The Secretary wrote me, May 7th, that the membership then exceeded the high water mark of 1903, (1653.)

But a small portion of the State remains as yet unaffiliated; and we have reason to expect that the entire State will soon be represented in this Society, and in the American Medical Association,

\*The annual address of the President, delivered at the annual meeting of the Michigan State Medical Society, Grand Rapids, May 25, 1904.

with its delegates and flourishing branch Societies in every county.

It is not strange that some of the older members of the old Society, who had assisted in its organization and maintenance, and had become used to County Societies adapted to local conditions, should not at once be reconciled to the change. Many of them deserve much credit for having kept alive organizations of rational medicine under conditions of difficulty and discouragement, and medical science owes them and their fellows, everywhere, a great debt of gratitude. But I feel sure that we can trust the same devotion to the common professional welfare that characterized their earlier zeal, to see that, while the old County Society was independent in a way, it was also weak in being alone, and could exert but little influence upon medical affairs outside its own territory.

Nothing good need be, nor should be, left or lost, that is desired to carry from the old house into the new.

The advantages that come from uniform organization of the whole State, of which each County Branch is a co-equal part, must be evident. We will be in line, and well towards its head with other States.

Technical and other defects of new Constitution and By-Laws will doubtless appear. It would be remarkable if none were found, but provision is made for correction, if needed, and it is the part of wisdom to accept accomplished facts and to give the new order a fair trial and our best support.

It has sometimes been the custom in the address of the President to review the progress of medicine, but it would be presumptuous indeed to attempt to review the progress of modern medicine in one,

let alone all, its varied fields in the limits of a short address. Though, in a general way, we may be optimistic, it is when we look backward a half or a quarter of a century that the comparison of to-day shows progress in new fields added, and better cultivation, more scientific methods, and greater achievements in combating disease and prolonging life.

The sections will furnish us all that is practical of this, and while I should have preferred to discuss some subject pertaining to Dermatology, it has seemed to me that more good might be accomplished by a presentation of some views that have sketched themselves during observation of the work of the Society for many years, and which offer opportunity to consider some relations of the State and the profession of medicine and the value of organization. I have chosen a title under which I may group some ideas of public and professional duty; of delinquencies of both and of needs for improvement in methods and results.

After all it matters less what we say here than what we do in our various fields of work. We should be able to make good where we are known the claims we make here.

#### MEDICINE WIELDS TOO LITTLE INFLUENCE

##### —THE STATE GIVES TOO LITTLE AID.

Every practitioner of many years' experience, as well as every sanitarian and every intelligent observing layman, must have been impressed with the disparity between the influence which the profession of medicine as a body, considering its numbers and ability, ought to exert on the public and on governmental affairs, and the amount of influence it actually does exert. On the other hand, the same observers must have remarked the difference between what the ideal great Com-

monwealth should do in caring for the physical being, promoting health and protecting its inhabitants against disease, and what it really does.

*What the United States Does:* The preamble of the constitution of the United States recites among its purposes: "To establish justice, promote the general welfare, and secure the blessings of liberty to ourselves and our posterity."

To "promote the general welfare" and make the "blessings of liberty" an enjoyment, the United States Government now spends millions to protect the country against communicable disease.

"The Public Health and Marine Hospital service," which alone spends a million in round numbers, not only figuratively patrols our own shores and navigable inland waters, but, through the consular and other service, is in touch with the habitable world, so that the occurrence of a case of cholera, yellow fever or plague, is telegraphed across the continents and under the seas to and from the ends of the earth. Vessels with infectious diseases are not permitted to land, and immigration companies are careful to ship no patients who may have to be returned at their own expense.

The benefits of the war with Spain were not alone, or chiefly, the liberation and protection of Cuba by the military force, but the suppression in large measure and restriction of contagious disease in the West Indies through the work of the medical force in the army.

Much has been done by the State of Michigan for the promotion of public health. Chiefly through the educational influence of our excellent State Board of Health, one of the leaders of such boards and of which we are justly proud, Michigan has been a pioneer in State sanitary work.

We have boards of correction and charities for the care of the vicious and unfortunate; asylums for the mentally disordered, the blind and the deaf.

Primarily, medical science and professional sentiment was the leaven which generated the humane public opinion that led to the establishment of such boards, as well as boards of health.

The State seeks to provide for pure food, pure milk and pure water for food and drink. It enacts laws for the protection of domestic animals against both disease and cruelty.

While all this effort shows a recognition of the obligation of the State to conserve life and health, not enough from our view point is done to discharge this obligation, so long as a single life more could be saved or prolonged.

The value of a human life to the State has been variously estimated at from \$1500.00 to \$5000.00. Estimated at either figure, the value of the lives lost from communicable disease, and to a large extent preventable, would amount in the aggregate to many millions of dollars, while the loss to those dependent for support and for love and affection, cannot be estimated in dollars and cents. The permanent or long continued loss of health is even greater in its burden upon family and community than is death itself.

In military battles, orders are given to wound rather than to kill the enemy, as aside from the less murderous and more humane contest, a wounded man requires the care of one or more effective men, and weakens the opposing force so much more. So if there were no humane motive to save life and promote health, its commercial and business value would make it the highest duty to save and prolong it. This proposition is so obvious as not to need argument.

It is conceded that the commonwealth recognizes this obligation now, as it does the various other functions of civil government guaranteed in the constitution, as it makes and enforces law for the protection of civil, political and religious rights, and rights of property and of corporations. It is a common boast that all are equal before the law, and especially in a government of the people, the poorest and humblest individual may secure its protection with the same certainty as the rich and powerful, and that the protection of the law reaches everywhere. This may be true as to rights of property, but in sickness the poor are at a great disadvantage. They cannot command the resources that resist contagion at home, or escape from conditions and localities where it cannot be resisted, and they suffer accordingly and become centers for further spread of disease. This is an instance in which the strong arm of the State should reach out, not alone for the local but for the common good.

It is comparatively recent that civil governments, as such, have concerned themselves so much with the prevention of disease and the conservation of life.

Some communicable diseases, like the poor, we have always with us. In the ideal government we should have neither. But such conditions are doubtless too utopian to expect in this age. However, there is no reason why we should not approximate as near as possible to such perfection.

Vital statistics form a valuable part of the study of pathology. Death rates, when the census is trustworthy, furnish us the only data of relative mortality and furnish the basis for all investigation of facts, which determine the growth or decay of population and of all that consti-

tutes a state. Fortunately Michigan, since 1897, has a good system of registration of deaths. When the law for registration of births is amended, as we hope and expect it will be at the next session of the Legislature, our system of keeping track of population and prevalence of disease will be among the best.

In reply to an inquiry of the Department of State, a significant reply is made by the chief of division of vital statistics: "In regard to comparisons of states where sanitary measures have been carried out, with those where no such measures have been conducted, I presume that it will be extremely difficult, or impossible, to secure any data whatever, for the reason that the states or countries possessing no sanitary administration are not likely to have registration of vital statistics."

This I found evidently true, even in states with some sanitary administration. For the purpose of securing data, as nearly accurate as possible, and also making comparisons with other States, I addressed letters of inquiry to Departments of State and health authorities in twelve States about in the same parallel and with few exceptions of similar area and population with Michigan, inquiring, especially as to amounts expended by the State in restricting disease and promoting sanitation; and evidences of success in lowering the death rate and lessening the prevalence of communicable disease. The reply to these inquiries are instructive and significant, and by comparison show our State to advantage. And though they take me farther than I had intended, into the fields especially under the agency of Boards of Health, a consideration of them is logically pertinent to our discussion. It is the field of preventive medicine and sanitary science that we can hope



to most interest and aid the State. The statistical information furnished in some of these letters is very meager and of little value for ready reference. Though each has some commendable feature, some of them can give no tabulated evidence of lessening disease or death rate, though all believe of course that communicable disease has been restricted and the death rate lowered by reason of the work done by the state. I have room for but a few abstracts.

To the Ohio Society for the Prevention of Tuberculosis is due the credit of starting the movement for the establishment of state sanatoria in that State. The legislative committee of that society prepared a joint resolution for the creation of a state tuberculosis commission and secured its passage. The bill now pending before the house—having passed the senate—to establish a state sanitarium for the treatment of cases of incipient tuberculosis, was presented by this commission, appointed by the governor.\*

The report of this commission is very full and contains a valuable collection of data, with reference to all conditions, such as altitude, climate, dryness, temperature, etc., in the state, and all facts bearing on the feasibility of successfully treating tuberculosis patients, within the State of Ohio. Most of the data contained in this report would apply with equal force to Michigan.

In Indiana the State Medical Society has taken up the subject of preventive medicine and consumption and has formed a league for the prevention of tuberculosis, and it is expected that the next Legislature in that State will pass such legislation as "we will present."

\*This bill has since passed the House and been signed by the Governor and become a law.

Pennsylvania has no vital statistics, and while reporting but \$6,500 for current expenses, at the last session of its Legislature, \$50,000 was appropriated for two years to aid in suppressing smallpox and \$50,000 more for two years for general emergencies.

Typhoid fever has been very prevalent in Pennsylvania, the recent epidemic at Butler furnishing evidence of the enormous cost in life and health, of such disease unrestricted.

The Health Commission of New York now expends over \$100,000 annually, which includes maintenance of a cancer and antitoxin laboratory.

Minnesota has taken steps for a tuberculosis sanitarium to be under special commission and not under the board of health.

Iowa has had a state board since 1860, and while unable to give figures, is certain "it has been largely instrumental in preventing or restricting communicable diseases, and could have been much more effective if it had had a larger appropriation for its use. Through its efforts a great many preventive hospitals, perhaps in the majority of our county seats, have been erected and are used as detention hospitals for the care and treatment of communicable diseases.

"During the past winter an effort to have enacted a bill providing for the establishment of a sanitarium under the control of the State was defeated, but \$1000 was appropriated for the purpose of investigating as to the benefits of such an institution, the cost of erection and of maintenance, etc."

Iowa has a new registration law very similar to that of Michigan.

In Wisconsin a bill was introduced in the last Legislature for an appropriation

to establish a Hospital for Consumptives, but it failed to pass the Senate. A committee was appointed by the Legislature, however, to take the matter under advisement and report to next Legislature. The Committee was composed of some members of the Legislature as well as some representative citizens of the State.

In Missouri the subject of State Sanatoria for tuberculosis has been agitated, and the expectation is that one will be established.

The letter of Sec. S. W. Abbott, of the Massachusetts State Board, is so concise and gives so much of the information I desired, that I give it substantially as received: "The State Board of Health of Massachusetts was established by act of Legislature in 1869. The amount appropriated for its use in 1904 was as follows:

For general work of board..	\$23,000.00
For food and drug inspection.	12,500.00
For engineering work, inspection of water supplies, etc..	34,000.00
For examination of sewer outlets .....	7,500.00
For production of antitoxin and vaccine .....	8,000.00
For printing and binding reports .....	4,000.00
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	\$89,000.00

"The death rate from typhoid fever has diminished from 9.3 per 10,000 inhabitants in 1856 to 1.9 per 10,000 in 1901."

"Death rate of consumption from 40.8 per 10,000 in '56 to 17.5 in 1901."

"Death rate of diphtheria from 15.8 per 10,000 in '76 to 4.7 in 1901."

"We have several hospitals for consumptives in the State, public and private. The State established one in Rutland,

Mass., now in its eighth year, and capable of holding about 300 patients with present additions of new buildings."

"No data collected of trustworthy character as to syphilis."

Massachusetts has an area of 8,315 square miles and a population of 2,805,346, or 337 inhabitants to the square mile. Michigan has an area of 53,915 square miles and a population of 2,420,982, an average of 44 inhabitants to the square mile.

We are all more or less familiar with the excellent work of our own State Board. I present some extracts from valuable letters from Secretary Dr. Baker: "Michigan has done a good deal toward the restriction of the dangerous communicable diseases. The results of that work are very manifest in the lessened death rate, more especially in scarlet fever, diphtheria, consumption and typhoid fever, one diagram exhibiting graphically the very great reduction in the mortality rate from consumption in Michigan, since active efforts have been put forward for its restriction. It shows previously, for three decades, a death rate of 110 per 100,000 inhabitants. In the three years ending with 1902, the deaths averaged 83.5, or *24 per cent less than before the restrictive efforts were made*. I think this reduction is largely due to the action of the consumptives themselves, restricting the scattering of infected sputa. They are doing this because of the education which they have been receiving constantly since 1891. I think there is good reason to believe that tuberculosis is one of the easiest diseases to restrict. Experience seems to prove this."

"While much has been accomplished in Michigan, it has been done without

the powerful aid, which would have been afforded by hospitals for the dangerous communicable diseases. . . Other States have provided such hospitals, notably Massachusetts, in which marked success has followed."

"Since the reduction in the mortality rate from tuberculosis, pneumonia has recently come to be the most fatal communicable disease in Michigan. The State Board of Health has commenced efforts for its restriction."

"Commencing with 1904, the State Board of Health has added three diseases to the list concerning which it collects, from active general practice, information as to their prevalence. These three diseases are: syphilis, gonorrhœa and cancer. It has been a surprise to me to learn of their prevalence. After a time, it is probable that an effort will be made to lessen the prevalence of gonorrhœa and syphilis. The lessening of cancer must wait for further knowledge concerning its causation."

The average amounts drawn from the state treasury, per year, during the fiscal years 1901, 1902 and 1903, were as follows: By the State Fish Commission, \$34,000; by the State Prisons, \$130,000; by the State Courts, \$167,000; by the Agricultural College, \$165,000, or including the Experimental Stations and Farms, \$185,000; by the State Asylums, \$860,000.

We would not suggest lessening expenditures for these necessary and educational institutions. The figures are quoted to show the relative amounts expended by the State.

Sec. Baker writes:—"The State Board of Health is not now hampered, in the work assigned to it, by lack of appropriations. It is, therefore, not asking for any

increase for its own use. For many years, however, it has been asking for appropriations by the State for the establishment and maintenance of a hospital, or hospitals, for consumptives. There are two classes of consumptives, which it is believed it would be economy for the State to care for in hospitals or sanatoria:

(1st.) Incipient cases, or cases in the early stages, many of which could be promptly cured and then safely return to their occupations, instructed in the methods for the restriction and prevention of the disease.

(2nd.) Advanced cases of coughing consumptives, who are scattering the germs of the disease broadcast around the State, thereby endangering lives and involving immense money losses, which might all be stopped by their proper care in hospitals, where their comfort would be increased and the outlay by the people of the State would be very much less than if they are permitted to continue spreading the disease. . . . Public health work in Michigan has been hampered by lack of proper financial support in the localities throughout the State, by reason of there being no law for the creation of local funds for public health work in townships. . . This subject was put before the State Medical Society at its meeting in 1900, and a copy of the bill proposed at that time will be found on page 200 of the transactions for that year. I wish the State Society and the several County Societies could be sufficiently interested in the subject, to labor for the passage of such a law. If these Societies would earnestly take up the subject, I have no doubt such a law would be passed."

"I do not forget that the establishment of the State Board of Health and other important legislations for the public

health has been fostered by the State Medical Society." . . .

It is not to be supposed that those of our fellow citizens who are temporarily invested with the authority and responsibility of government deliberately permit preventable conditions which result in loss of health or life.

The awful holocaust in the Iroquois Theater in Chicago, with a loss of over 500 lives, served, at a sickening cost, to compel, throughout the whole country, better protection against fire in public buildings.

The Government of the State seeks to protect the public against danger to life in travel.

The grade crossing fatalities and other so-called accidents, that so endanger life, are largely preventable and at a cost far less than the lives sacrificed. These losses of limb or life, these mechanical tragedies are of a character to be understood by all, and the remedy, better architecture and engineering, is one of dollars and cents.

Epidemics of typhoid, such as the recent one at Butler, Pa., and at Cornell, in Ithaca, where over 500 cases occurred with 50 deaths, were both due to impure water.

At Stanford University and Palo Alto, Cal., over 150 cases occurred, all traced to one milk supply.

Such instances as these excite general interest, while they last and cause spasms of reform, but they can be determined and controlled only by skilled investigators, familiar with causes and phenomena of the disease and the best methods of arresting it.

Such calamitous results show what happens when outbreaks are not controlled properly.

An occasional case of smallpox excites a community and some times a whole State into a panic, in which civic officials, the public, and sometimes doctors, lose their heads and fail to show their faith in vaccination, disinfection and quarantine.

But while these cases, of rare occurrence and small aggregate mortality, so disturb us, we grow accustomed to the diseases of most constant prevalence and greatest fatality at our very doors. Most of them, if not wholly preventable, are at least amenable to methods of treatment, which greatly restrict their frequency and fatality.

The ideal medical science is preventive, the discovery of new facts and investigations of causes of disease.

Conservation of life and health is the highest work that the State can engage in. The provisions in the statutes for the protection of the people against dangers of travel, of occupations, show the recognition by the State of this responsibility. This protection against injuries it furnishes chiefly in compensation for damages secured through courts of law.

The vital statistics of the State show, that while the total death rate of the State for 1900, from all causes, was 33,778, the deaths from violence and accidents were but 1966 and the deaths from old age were but 674, deaths from pneumonia were 2843, deaths from general tuberculosis 2482, deaths from diphtheria 562, deaths from scarlet fever 196, deaths from smallpox 28. *Twenty per cent* of all these deaths were *under one year* and *twenty-eight per cent* were *under five*. And the deaths from communicable diseases are more than double the number from accident, violence and old age together.



It is true that this is a greatly lowered death rate in some diseases from 50 and 25 years ago, and this but proves what this great power of the state can do, when rightly applied, and it is a matter of state pride that Michigan is more liberal and enterprising than some of her sister States.

But this is not enough. What further, then, it may be asked, may the State do? And we answer: If this remarkable showing can be made with such limited resources, what might not be done if the State Boards were supported by the power of the State, with sufficient means to secure the most thorough sanitation. If competent local health officers could be induced to accept such positions, without too much pecuniary loss, and be supplied with means to investigate causes of disease and methods of treatment, a broader campaign of education should be attempted and the children and youth, as well as the adult population who constitute the State, and on whom rests the responsibility of government, may be instructed in the principles and practice of sanitation. Small county, or district, hospitals for the prompt care of acute contagious disease and larger sanatoria for the care of incipient stages of the more chronic conditions of tuberculosis, could be maintained.

The ideal state is one in which its inhabitants may have health at home and, if unavoidable illness comes, to recover at home. Not all patients can go away from home to seek health; most of them must stay where duty and necessity keep them, and one of the greatest needs of medicine of this day is to successfully treat patients at home. No climate is so good that unsanitary local conditions would not make it poor, and none so poor

that good sanitation will not make it better.

The Peninsular State, occupying a position between the great lakes, with more than a thousand miles of lake front, has a more equable climate than many of its sister states. Its whole area is more or less underlaid with strata holding in solution nearly all forms of medicinal salines easily procurable for those who want "mineral waters." There are practically no climatic diseases, so called, in Michigan.

Tuberculosis patients in the early stages recover in all climates and in all altitudes, from the sea level in Florida, and San Diego, California, to the Adirondacks, N. Y., Asheville in N. C., Colorado, or Sante Fe, N. M.

The power of the state, which has resulted in the diminished death rate from preventable sickness, has been exerted heretofore primarily and chiefly, and must hereafter be exerted, through the agency of the medical profession.

*To secure the further reduction of this death rate, increased length of life, the removal of preventable and communicable causes of sickness and better care of infantile life, are among the obligations of the state; and are some of the tasks the state, aided by the science and the art of medicine, with all its accessories, should fit itself to accomplish.*

It is a persistent campaign of education in hygiene and sanitation, and like the price of liberty, is eternal vigilance.

*And here is the opportunity of medical science and art to show itself deserving the support of the state and able and ready to direct this great humane effort. Its advocates must be prepared to show that what we represent, as rational medicine, is the best obtainable in the age in*

which we live, and covers everything known to be useful in combating and successfully arresting disease. They must show that medicine is not dogmatic or exclusive; that its practitioners are not restricted in the use of any means that will arrest disease and restore health; that its investigations and researches contribute to the public good and become alike the common property of the profession and of the state.

However interesting the study of the elemental sciences of medicine, its value will be judged by the world to which it appeals for support, by what its practiced art can do for the good of the race.

One of the most suggestive tables of vital statistics, showing the influence of restrictive measures on causes of death, may be found in the last published report of the English Registrar-General for the year 1901. Rates are given for quinquennial periods for the years 1866 to 1900 for England and Wales and the remarkable decline in such diseases as small-pox, scarlet fever, typhoid fever and phthisis may be contrasted with the stationary and increased rates from other causes not affected by sanitation.

One of the most remarkable facts bearing on modern sanitary efficiency is the extremely low rates of mortality that now occur in some of the larger modern cities, such as London and New York. In spite of the increasing population and increasing crowding of certain portions, the city death rates show a tendency to become lower, year after year, until they approach the mortality of the more favorably situated rural districts.

Under the lead and influence of the foremost men on public opinion, the State has already in successful opera-

tion, through its excellent Board of Health, control of sanitary and hygienic conditions of communities, of schools, factories, employees, vehicles of travel, disinfection, quarantine, etc.

The profession of medicine, so largely responsible for all this improvement over conditions obtaining a half, or even a quarter, of a century ago, to deserve continued confidence, must prove itself worthy to be trusted in the continued direction of intelligent public opinion, and of advising legislative and executive departments of the government.

#### THERE ARE NO SECTS IN SCIENCE.

Such a science of medicine and such a profession, to deserve support, must not only be learned, it must be broad, comprehensive, liberal, tolerant in non-essential particulars, that sacrifice no truth, and to be consistent must enlist and accept all practitioners to its ranks that will work under this banner. We cannot logically refuse membership to practitioners of medicine who have voluntarily abandoned the dogmatic, exclusive or unscientific methods of which we complained and put themselves on record in support of rational scientific medicine. But neither should we deceive ourselves by the idea that mere increase of numbers, without ability and merit, will make us strong as a society. The test should be qualification in scientific attainments and fitness in character.

To promote and safeguard its present efforts for public good, the State should control medical education and determine qualifications, not only of those who practice medicine in all its departments, and by every method, but of those who propose to study medicine; practically what the first medical act under territorial ad-

ministration provided for, and what the present Medical Practice Act seeks to do.

The practice of medicine is not limited to the administration of drugs.

A great step forward has been made within the past few years by the requirements of examination to determine fitness for practice. This will soon become uniform in states by reciprocity of examining boards. Thus the examining board of each State has power to secure the elevation of the standard of all. This practically is the logical position the State now holds, and to which it was urged by the profession, and chiefly through the agency of this Society. It is therefore incumbent on the Society to support the State in this laudable work.

The correspondence quoted, shows that the efforts to restrict communicable disease, and particularly tuberculosis, are active in various stages of progress in all these States, as they are in all the civilized world, by the establishment of sanatoria especially adapted to the care of such patients. Many other States have such institutions in active and successful operation. These not only cure incipient cases but educate patients who in turn instruct other patients.

The United States Government has two such sanatoria, one for the army at Fort Bayard, N. M., and the other for the Public Health and Marine Hospital service at Fort Stanton, N. M.

It is not to be supposed that Michigan, holding so advanced a position in general education, shall be behind in the education so essential to the well being of the State, in the development of a hardier race and the lowering of its death rate.

*The effort is too large for private en-*

*terprise*, or if attempted by private capital, it could only be made to "pay" in the sense in which capitalists make investments, by such charges as would place it out of the reach of the poor, who most need it.

If the State very properly seeks to reclaim waste land, cultivate forestry and maintain experimental stations in agriculture, how much more important to investigate causes and treatment of the most fatal diseases.

The popular fear that the segregation of tuberculosis patients will increase local infection is shown to be erroneous, that nurses and attendants, in well conducted sanatoria, almost never acquire the disease and people in the vicinity are in less danger than they would be by a single case without the particular care given in hospital.

Many facts and statistics could be given, but it is not my purpose to go into the question in detail.

We have a committee to report on the subject of petitioning the Legislature to establish sanatoria for the treatment of incipient tuberculosis. The committee will, I am sure, thoroughly consider the matter and present some proposition for your approval. My purpose is, rather, to show the need for united active co-operation on the part of the Society and the profession, to secure results asked for from the State. If it proves impracticable to secure at once a sanatorium, we should be prepared to advise the appointment, by the State, of a commission to investigate and report as to needs, feasibility, methods, plans, costs, etc.

We do not advocate paternal government to the extent of officious meddling with rights of those willing and able to



take care of themselves, nor to discourage individual effort on the ground that the State will do everything. Many of those who most need the care of the State have no other protector, and those who feel quite able to take care of themselves and their families find that their own care does not protect them against the negligence of others, whether in the exposure of travel or in home communities.

Not many years ago, in New York, an old woman, herself a criminal, became celebrated as, "the mother of criminals." From her direct descendants and relatives, within two or three generations, in the neighborhood of 150 persons had been convicted of crimes, varying from larceny to murder, and were a constant menace to the peace and order of the state and a burden to its taxpayers.

Cases of infectious disease, the generations of which are short, are more dangerous and expensive than criminals.

The best crop a State can raise is one of healthy men and women, and it should be the duty of the State to secure, for this human crop, vigorous development and length of days.

These are but suggestive hints of a few of the ways in which the profession of medicine may aid the State, in part, to carry out its obligations to its inhabitants. They are not new ideas—most of them are old and trite, but they offer ground upon which the State and medicine can work together, to the mutual advantage of both. The essential condition, however, for the profession to secure respect and wield influence, is united, harmonious co-operation.

Surgeon General Wyman, speaking before a sanitary association on the attitude of the national government towards

sanitary science, forcibly illustrates this necessary condition. Substituting State for National Government and Legislature for Congress, his remarks apply not inaptly to Michigan and, doubtless, to other States. Substantially he said: "The complaint has been made that the State through its Legislature was more liberal towards medical and sanitary science in relations to the lower animals, than in its relations to human beings. But the representatives of the State say that the reason for apparent neglect of medical and sanitary science, as applied to human beings, is due to a lack of harmony among the special advocates of such measures. Legislative bodies have been confused by conflicting views of those interested and proper legislative action materially deferred. Hence the necessity of most careful consideration and unanimity of action on the part of those who seek to obtain legislative action in aid of medical science and practice. Hence the necessity of a united and well organized Society, which will include all the reputable practitioners of the State."

To be the chief agency of the State in the achievement of such beneficent purposes as the better conservation of health and life by the lessening of preventable disease, and bringing to maturity and ripened age some of the appalling number of lives now lost in infancy, will add to the honor of the profession of medicine and of this Society.

And the State, so celebrated for the fertility of its resources of soil and forest and mines, its navigable waters, its public institutions, its system of education, will deserve a renown beyond all it now enjoys, for having added to the length, the value, and the enjoyment of human life.



## ABDOMINAL PAIN.\*

H. E. RANDALL,  
Lapeer.

The conspicuous trend of surgery during the last year has been to study more closely the clinical aspects of disease. It is undoubtedly true that technique has almost reached perfection, and the energy that has been put forth in inventing new instruments and operation is being expended in diagnosis. During the last few years it seems to me diagnosis has been neglected. Exploratory operation was advised to make a diagnosis. Several factors led to this condition. The symptoms of disease were raised to an entity by some of our separated brethren, which had a repelling effect on the regular profession. Another factor, I believe, that has led to a neglect of the study of symptoms, has been the influence of Virchow on modern medicine, and the more scientific methods of physical diagnosis have caused us to forget to study the clinical aspects of disease.

Luckily the pendulum has started back and we are commencing to appreciate the fact that pathologic conditions produce certain well defined symptoms. A diagnosis of diseases of the chest may be made by a physical examination alone, but in how many abdominal diseases could a diagnosis be made by mere physical examination, especially in the more acute conditions in which a timely diagnosis is imperative? In the chest you have practically three organs, in the abdomen you have about four times as many, yet our text books give from sixty (60) to three hundred (300) pages on the examination of the chest and the examination of the

abdomen is disposed of in about a dozen pages. A diagnosis of disease of the chest may be postponed, but many times a diagnosis in diseases of the abdomen must be made at once and proper measures instituted in order to save life.

Not every one becomes expert at palpation, but a close study of symptoms will bring one close to the truth if the history, character and location of symptoms are observed. Do not misunderstand me to say that physical examination of the abdomen is to be neglected or belittled, but what I do wish to impress is that we have been neglecting a field that carefully tilled will yield an abundant harvest of information.

Abdominal disease causes a patient to seek relief from one or more of the following:

1. Discomfort or pain, local or referred.
2. Abnormal increase or decrease in size, as in tumor, dropsy.
3. Absence or a modification of the excretions or secretions or some abnormal discharge.

But pain is usually the most prominent. It is foremost in the patient's mind and the one for which he seeks relief. This symptom to the physician may be "suggestive, characteristic or confirmatory" of a certain disease.

Before considering the character and location of pain, it will materially assist us if we remember that the nerves of the body are distributed lower than their origin in the spinal cord. It is of interest to know that the twelfth intercostal nerve supplies the skin of the gluteal region. "Furthermore, as the abdominal nerves are prolongations of the nerves which supply the

\*Oration on Surgery delivered at the 39th Annual Meeting of the Michigan State Medical Society, Grand Rapids, May 26, 1904.

lower intercostal muscles, there is an intimate relationship with the movements of respiration. Moreover, these nerves are in intimate association with the nerves supplying the abdominal viscera through the thoracic, sympathetic ganglia, from which are derived the greater and lesser splanchnic nerves." This explains the limited respiration on the right side in cases of appendicitis and in inflammations of gall bladder. Head has shown that when a painful stimulus arises in an organ or tissue having a low degree of sensibility and nerve conveying, it is centrally in close connection with a tissue or organ having a much higher degree of sensibility, that this stimulus is felt in the part relatively more sensitive. All visceral pains are referred pains.

These points borne in mind explain many puzzling symptoms which are met with in both thoracic and abdominal disease.

It explains why many children, in commencing lung affection, have pain in the abdomen and how in other abdominal cases the pain is referred to the chest.

In every individual case we must always determine are the symptoms of "pain feigned, or are they voluntarily exaggerated, or is there deliberate deceit," or are they real. It must be remembered that patients describe symptoms according to their "imagination, vocabulary and experience." These points can be acquired only by bedside practice. But let us never forget that a hysterical patient may have genuine pain for which surgical means must be instituted.

It is important to know the exact location of the onset of pain and its character, whether it started in epigastric or cecal or umbilical, left inguinal or right, or left hypochondrial regions.

The location of a pain does not always accord with the point of tenderness. Referred sensitiveness as distinguished from referred pain is determined by experiment with a blunt and sharp instrument, such as a pin, and Head has published several plates in which these areas have been mapped out. The location of a pain and the point of sensitiveness are two entirely different things. For instance appendicitis may start with pain in stomach, but the sensitive point is over the appendix, or again there may be epigastric pain with the sensitive spot over the gall bladder. "Pain in the epigastrium should call for a careful examination of the sensitive spot over gall bladder, the same as pain in the lower bowels call for a careful examination of suspected disease of the appendix." When local pain and sensitiveness exist at same location we have one of the most important diagnostic means at our disposal.

Pain in the abdomen may be roughly divided in: (1) dull, heavy, continuous pains; (2) sharp, colicky or intermittent. Among the dull, heavy pains may be mentioned: The pain of tuberculous disease is a continuous, dull aching pain. Lucas says: "Pain in excess of pus indicates stone in kidney affection; pus in excess of pain, tuberculous pyelitis."

Dull pain in epigastrium suggests dyspepsia.

Dull pain over bowels suggests constipation.

Dull pain over liver suggests congestion of the liver.

Most benign tumors cause dull pain.

Another instance of dull pain is in enlargement of spleen.

A colicky pain is caused by some disorder in a hollow organ or tubular system. This type of pain is characteristic of an effort to expel something within.

The continuous pain is characteristic of disease of the mesoblastic tissue and follows the colicky pain, if not effectual in expelling what is foreign to its contents, as is seen when following renal hepatic, uterine, intestinal colic, etc. It denotes that wall of tubes have become affected with disease. Here we have the two types of pain combined.

The only exception to these facts is that acute pancreatitis resembles more intestinal colic than the dull heavy pain of hepatic disease. But even here the more pronounced collapse is suggestive, and on opening the abdomen the presence of fat necrosis readily made the diagnosis.

In neuralgia the course of the pain is over the abdominal nerves themselves. One slight touch intensifies the pain and there are usually the three sensitive spots, anteriorly, laterally and posteriorly. Bilateral pain suggests a spinal origin.

Local pain with local tenderness is one of the most important symptoms in abdominal diagnosis. So trustworthy is this that pain and tenderness over McBurney's point, especially with rigidity, is sufficient for an absolute diagnosis of appendicitis. Mayo Robson says that tenderness together with pain justifies a diagnosis of gall bladder disease. As Kehr has shown that jaundice is absent in about 90 per cent. of cases, it furnishes us a symptom on which we may safely base a diagnosis.

Local pain, with tenderness where both cover the same territory, is the most important and trustworthy symptom in diagnosing the more acute diseases.

The mode of onset of pain is suggestive. Among those coming on gradually are catarrhal appendicitis, cancer, ectopic pregnancy, gastric and duodenal ulcer, metritis and salpingitis. A pain comes on suddenly in appendicitis, gall stones, colic,

intussusception, twisting of bowels, twisting of pedicle of cysts, hernia and renal colic. If mesoblastic tissue is affected, as in catarrhal appendicitis, there may be the dull continuous pain, but in inflammation the pain is increased so that the patient goes to bed. Williams' Obstetrics says: "The diagnosis of tubal abortion or rupture should be made without hesitation whenever a patient who is believed to be pregnant has complained of pain in the lower part of abdomen and suddenly becomes faint, deathly pale, and sinks into a state of collapse. If the collapse becomes more profound and the temperature is subnormal, rupture has probably occurred. On the other hand, if rapid recovery ensues, the probabilities are that one has to deal with abortion and the subsequent formation of an hæmatocele settles the question."

A study of pain in acute appendicitis is important. I have always diagnosed perforation where there is sudden cessation of pain, the constitutional symptoms remaining the same. More gradual cessation of pain, constitutional symptoms remaining stationary or increasing, means gangrene. This brings us to those terrible cases occasionally seen in which there are little or no constitutional symptoms and no local symptoms—anæsthesia.

We saw a case a short time ago in which nothing was revealed by a careful examination by the attending physician, who was not called until the fourth day of sickness. He found no swelling, pain or tenderness over abdomen, except over front left kidney. Temperature 99, pulse 90. When seen the next morning he said he was better and physician found him pulseless and in profound shock and immediately diagnosed perforation somewhere in bowels. He was dead when I

reached him. Postmortem revealed the primary cause as appendicitis—gangrenous appendicitis with a general peritonitis.

It would be interesting to mention other phenomena in connection with pain as an abdominal symptom, but time will not permit. We might speak of gastric ulcer and its sharply localized tender spot. We might profitably spend an evening on the clinical symptom of the gall bladder disease: How sometimes pain in gall stone may simulate hyper-acidity of stomach. How various diseases may simulate peritonitis. Intestinal colic may simulate peritonitis but the fever is lacking. How in ordinary tympanites we do not get the rigidity of the abdominal muscles and the previous history of dull pain with constipation. The pain of obstruction of bowels is colicky and intermittent in character; patient comparatively easy between attacks of pain. Pressure relieves the pain. When obstruction from hernia or invagination and so on cause peritonitis, or peritonitis causes obstruction of bowels, only a careful review of history of case will reveal the diagnosis. We might dwell on the rigidity of peritonitis—how the pain and tenderness is a guide to the extent of the disease.

If I have stimulated one to look more closely and perhaps a life saved thereby, I will feel that I have not taken your time in vain.

Dr. J. B. Murphy recently wrote: "The close study of the clinical manifestations of disease is becoming more apparent daily as well as the exact association of symptoms with definite pathologic changes. This is rapidly placing surgery in the role of prophylactor or extensive pathologic destruction rather than as scavenger of pathologic products."

It is said that in not over half of the recorded cases of intussusception, was a correct diagnosis made. In acute abdominal troubles ordinary physical examination will reveal but little and we must more diligently study the clinical picture. We should not depend on symptoms alone, as described by the patient. The subjective symptoms, the objective signs and physical examination must be fitted together.

Pain was given man not as a punishment but as a means of preservation. It not only warns of danger but points out, in a majority of cases, where that danger is if we but interpret it aright. Surgery will become more ideal as the timely diagnosis is made. The future of surgery is in the hands of the family physician, the general practitioner. The question is not always one of exact diagnosis, however desirable, but the question is, is it a surgical disease, and if so, do the symptoms justify a moment's delay? This many times may be more difficult to decide than it would be to perform the operation.

#### Some of the Causes of Failure to Obtain Proper Results in Gynecological Work.

1. Failure to properly investigate the conditions in each individual case.
2. Erroneous and incomplete diagnosis, resulting in failure to correct causes of trouble.
3. Defective aseptic and surgical technique, leading to adhesions from infective and exposed raw surfaces.
4. Failure to estimate the resistive power in individual cases. One class requires rapid work

and limited period of anesthesia, and the other class, painstaking work and perfect technique.

5. Failure to recognize that long standing cases of neurasthenia are rarely curable by surgical means.

6. Too much special study on one subject to the exclusion of proper consideration of other diseases.

7. Impatience on part of surgeon and patient for immediate results and meddlesome interference before nature has accommodated organs to the new conditions.—(*The Charlotte Medical Journal*, April, 1904, W. L. ROBINSON.)



## FURTHER EXPERIENCE WITH STREPTOLYTIC (ANTISTREPTOCOCCIC) SERUM IN RHEUMATISM.\*

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Detroit.

Over a year ago I read a paper before this Society on the use of Streptolytic (antistreptococcic) serum in the treatment of inflammatory rheumatism and now wish to review the results obtained in the 27 cases treated up to this time.

That inflammatory rheumatism is caused by a micrococcus is now generally admitted, but whether it is the streptococcus, diplococcus or an allied coccus growing in streptococcic chains having specific tendencies to produce rheumatism, is still under discussion by bacteriologic investigators.

The rationale of giving streptolytic serum in rheumatism before the exact nature of the germ which causes the disease has been determined, may be questioned by some, but it must be admitted that while exact technical knowledge is desirable when available, it is not always necessary to the obtaining of practical results. Dr. John W. Foss, in his report of cases of mixed infection in tuberculosis treated with streptolytic serum, says that "staphylococci decrease almost in the same ratio as streptococci." Others who have used this serum in mixed infections of tuberculosis have made the same observation. I have on two occasions had patients where microscopic examination showed diplococcic infections which promptly yielded to streptolytic serum. The streptococcus, staphylococcus, and diplococcus are allied germs, being similar in many respects while differing in

others, but these practical experiences tend to show that an effective serum produced by employing the streptococcus has an immunizing influence against all of them. If it should finally be demonstrated that rheumatism is caused by a specific germ similar to the streptococcus or diplococcus, but differing in that it does not produce suppuration and has a predilection for joint infections, is it not reasonable to suppose that an effective antistreptococcic serum may immunize against that germ as well as it does against staphylococci or diplococci? My experience with its use in treating articular rheumatism would certainly substantiate such an opinion. To obtain a comprehensive view of the results obtained it is necessary to consider the cases as they present themselves for treatment. Inflammatory rheumatism with the usual treatment is very liable to recur at irregular intervals and if the recurrence is often, with prolonged attacks, the case becomes chronic. Six of my cases gave a history of repeated attacks extending over a period of from six months to five years. They all gave a clear history of having had an acute attack of joint inflammation with fever, which confined them to bed during the first attack, and with subsequent attacks usually accompanied with some fever and much pain in the involved joints.

Three of these cases were entirely cured, two very much benefited, and in one case no results were obtained. One of the improved cases had been almost a constant sufferer for five years with

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knees, shoulder, wrist and finger-joints deformed, swollen and painful. She is now practically free from pain and her deformities are improving. The case in which no results were obtained tolerated the serum very badly. After taking a few doses it caused a fever and an urticaria, which made him quite sick. After the urticaria disappeared the serum was again used, but with no better result.

One case had repeated attacks of rheumatism over a period of 20 years. After having been treated with several courses of baths at Mt. Clemens and other places, dieting for years and taking all kinds of drugs known to the profession from the hands of competent physicians, she came under my care for treatment. She then had a rather acute attack with fever  $101^{\circ}$  and swelling in shoulder and elbow joints. After giving four doses of serum at three-day intervals she developed a general urticaria and was sick in bed a week. After the urticaria disappeared her rheumatism was much improved and continued to improve after that. She has felt better since she took the serum than she has at any time during the previous 20 years.

In these chronic cases the serum is not borne well, being very liable to produce a disagreeable urticaria. Ten c. c. of serum should be given as the initial dose and repeated at intervals of from two or three days until three or four doses have been administered. By this time there is usually considerable swelling and some itching over the site of the last injection, which indicates that a general urticaria is liable to appear. The serum treatment should then be discontinued for from one to two weeks, until all signs of urticaria have disappeared. If by this time

the rheumatic condition has not materially improved, one or two more doses should be given. This may produce another attack of the urticaria, which will again pass off if the serum is discontinued.

In these chronic cases, when they are once brought under the influence of the serum, one dose a month is enough to keep the influence up.

During these attacks of urticaria the patient usually suffers with considerable muscular pain and some fever. This condition can be much relieved by giving liberal doses of the salicylates.

Three cases have no history of an acute attack with inflamed joints, accompanied by fever, but were complaining of shifting pain in the muscles of arms and legs, and at times also pain in the joints. This condition had lapsed into a chronic state. None of these cases derived any benefit from the serum treatment. One of these cases was interesting in that it showed how much more serum some can take than others without producing a rash. She was determined to continue the treatment, until 18 doses had been given without any beneficial or reactive effect.

Three cases had some swelling of joints but no history of an acute attack of inflammation with fever. They were chronic, with enlargements of involved joints. Of these, one case was much improved. The other two derived no benefit.

Of the 15 acute cases, four were children. Of these one adult had a return of the disease, one year after the first attack, which promptly yielded after giving six doses of the serum. One child had a light attack of chorea following the rheumatism. All these cases made good

recoveries, sixteen days being the longest anyone was under the serum treatment. One case recovered in three days. Seven of these cases from the intense joint involvement and high fever promised to be unusually severe and prolonged, but after four or five days' treatment, showed marked improvement.

The serum treatment works best in the acute cases with the first attack, and the amount of serum required varies in proportion to the severity of the infection, as indicated by the temperature and extent of the inflamed parts.

Where the temperature is high and the joints very painful and swollen, 20 c. c. should be given as the initial dose, followed by daily injections of 10 c. c. until the rheumatic condition is well under control. This will usually take place about the fourth or fifth day. After this the injections should be given every second or third day for four or five more days. In milder cases the serum is not borne so well, producing an urticaria and fever, if the serum is pushed as hard as indicated in the more severe cases.

Where the fever is low, and the inflammation not intense, it is best to give 10 c. c. as the initial dose and repeat it every other day thereafter until indications of an approaching urticaria appear by the amount of swelling and itching at the point of the last injection.

Heart infection and its consequences is recognized as one of the serious complications following acute inflammatory rheumatism. Dr. McCrae (*American Medicine*, March, 1904, p. 164) in a statistical review of 270 cases in Osler's Clinic as to heart conditions, divides them into three groups, in which he places 38

per cent. as having normal heart sounds; 32 per cent. where there is certainty of an organic lesion, and the balance doubtful.

In all these cases no heart complications developed. This in my opinion can be explained on no other ground than that the serum treatment prevented heart infection.

Anemia, and the general debility which so often follows inflammatory rheumatism, did not appear in any of these cases.

From what experience I have had I think I am safe in predicting that where streptolytic serum is properly used in initial cases of acute inflammatory rheumatism, the lapse of the disease into a chronic condition from recurrences with joint deformities will be avoided and that heart complications following this disease will be a thing of the past.

The question of diagnosis and in what case to use the serum is very important. Simply having pain in one or more joints, with or without tenderness on pressure, is no evidence that the case is inflammatory rheumatism. The pain may be due to a neuritis, overwork of certain groups of muscles, sprains, concussion of joints and other causes. On the other hand, joint infections may be slight or severe, depending on the virulence of the invading organism and the resistance of the individual case infected. If we have a case with a painful tender joint, accompanied by an elevation of temperature, the indications are that we are dealing with an infection, and the serum treatment should be used.

This rule may be applied to chronic as well as acute cases but more experience is necessary to form any definite plan.

## SUBPHRENIC ABSCESS—WITH REPORT OF CASE.\*

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Marquette.

Collections of pus under the diaphragm, although comparatively rare, are of sufficient frequency to require constant watchfulness on the part of the physician. This condition is of special interest from the standpoint of diagnosis, and in its varied forms it but too frequently evades the skill of the most careful diagnostician.

Suppurative inflammation in this locality is almost invariably secondary to inflammatory or malignant processes in neighboring organs. As practically all abdominal organs are in direct contact with the diaphragm, the diversity in causation becomes manifest. Aside from the direct extension of these processes, from abdominal organs this condition may arise from traumatism of the lower thoracic wall, from disease of the bony walls of the thorax, by extension from the lungs or pleura, through the lymphatics, as a part of a general suppurative peritonitis, or by the deposition of septic germs from the blood stream in pyæmia.

The abscess may occur at any point under the diaphragm, but is more frequently right sided. The location, as a rule, is determined by the origin, gastric or duodenal ulceration and appendicitis, the most frequent causes, giving rise to left and right-sided ulcerations, respectively. The pus may be either within the peritoneal cavity, circumscribed by adhesions, or outside of it, either behind or between its reflections. This relationship depends upon the path of the infecting agent, whether it is within the cavity

or outside of it, as in some retrocaecal and perinephritic abscesses. The chief point in this connection depends upon the natural firm union between the peritoneum and diaphragm resisting separation by the invading pus, which becomes apparent early, by pointing toward the lumbar region or by perforation of the diaphragm.

In size these abscesses vary greatly and as a rule the intra-peritoneal are much larger than the extra-peritoneal and are more easily recognized.

The contents consist of thick foetid pus and not infrequently gas, the latter resulting from the perforation of some hollow viscera or by decomposition of pus.

The development is at times delayed for weeks, or even months, after the original disease has subsided or been relieved by operative procedure. This fact is explained by the early migration of septic organisms, and their encapsulation in a latent state until such conditions arise as favor their development. The onset is usually sudden, but at times is so insidious as not to attract attention until a large accumulation has formed.

The symptoms of pus in this region must of necessity vary greatly with the original source of trouble and the location of the abscess, but there are a number of signs and symptoms common to all. Aside from the almost constant septic symptoms, indications of acute peritonitis in the upper abdomen are also usually present. These consist chiefly of pain, tenderness, vomiting and muscular rigidity, shortly followed by tympanites, with more or less complete paralysis of that part of the diaphragm involved. The

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pain is intense, is increased by cough and respiratory movements, and is referred to either the epigastrium or hypochondriac region, or in right sided cases, to the right shoulder. Tenderness is marked, and aside from the upper abdomen, is usually present in the lower intercostal spaces of the affected side. Hiccough is often a very annoying and persistent symptom and a slight jaundice is not infrequently observed.

The physical signs presented depend upon the size and contents of the abscess. In the ordinary case, the bulging of the lower thoracic wall is marked and characteristic, and respiratory movements of the diaphragm are absent or diminished on the affected side, while respiration is shallow and costal. The intercostal spaces are not altered, and with intra-peritoneal collections on the right side, the liver is depressed. At times the pus formation may be anticipated by finding a friction rub in this location at the onset. Soon after this, flatness or dullness may appear on percussion over the area of relative liver dullness, and may gradually extend until in some cases it has been found as high as the second rib in front. The respiratory sounds above the area of dullness are well preserved and may even be heard for some distance below the dullness. Vocal fremitus is abolished, and the heart may be displaced. The presence of gas in the abscess cavity is indicated by a tympanitic area over the normal liver dullness with the patient in the recumbent position, which varies with changes in the patient's position. Succussion may also be elicited.

In the diagnosis of sub-diaphragmatic collections of pus, the previous history of the patient is of the utmost importance. With a previous history of disease of

the stomach, gall-bladder or appendix, or of acute inflammatory disease in any other part of the abdomen, followed by a slow convalescence, more or less marked signs of sepsis, and indications of fluid at the base of the lungs, this condition should be considered. It is impossible in a paper of this scope to consider all the factors which might enter into the diagnosis of this condition, so only a few of the more common will be considered. The differentiation from an empyema is the usual stumbling block, and the true condition is but too often discovered upon operation. In the consideration of these two conditions, the history is of the greatest importance, as empyema seldom occurs without previous symptoms referable to the lungs, while subphrenic abscess is as invariably without them, but has a history of previous abdominal trouble, while the severity of the symptoms is much less in the former than in the latter. The prominence of the side is almost pathognomonic, as it occupies a much lower position than could pus in the pleura. The intercostal spaces are not obliterated, as is often the case with empyema, and the displacement of the heart is less than in pleuritic effusions of like size. The liver is often greatly depressed in large subphrenic abscesses, which is seldom so in collections of fluid in the pleura. The upper border of the exudate into the free pleural cavity generally assumes a characteristic curve with concavity upward, and the dullness changes with change in the position of the patient, while in subphrenic abscess the upper limit is either a straight line or convex upward, and if no gas is present in the abscess cavity, the dullness does not alter with change of the patient's position. The respiratory murmur in pleuritic effusion

is seldom heard below the level of the fluid, and in empyema is usually feeble where found, while in the other condition it is distinctly heard some distance below the level of dullness and is clear in the compressed lung above. The transmission of diaphragmatic movements to the exploring needle in a subphrenic abscess, being in an opposite direction to that of one in the pleural cavity, has been lauded as pathognomonic, but unfortunately, in accumulations of any size, this organ fails to move. The application of the same principle has been claimed for the flow from the needle, the pus escaping in spurts during inspiration if below the diaphragm, and during expiration if above it. The diaphragmatic shadow is fully as uncertain.

The exploring needle affords the only positive means of confirming the diagnosis of pus, but often leads one astray as to its location. Pus from the needle, through the fourth or fifth interspace in the axillary line, is too apt to confirm one's suspicions of empyema in these cases. More complicated still does the case become when pus below the diaphragm is complicated by fluid in the pleura. Here again the history of the patient is of the greatest importance, and the free use of the needle may clear up the condition by obtaining fluids of different character from different punctures. Too much reliance must not be placed upon the history alone, as it is possible to get pleuritic effusion, after the same abdominal conditions, in which subphrenic collections might be suspected. The highly offensive odor of the pus from these abscesses should have some consideration in diagnosis, for, as a rule, that of empyema is without much odor. A localized empyema of the right side

is recognized from this condition with great difficulty, the diagnosis depending upon the points previously mentioned.

Gas in the abscess cavity frequently affords a good picture of pneumo-pyothorax. The differential points here to be considered are in the former, the previous history of abdominal symptoms and absence of thoracic, the limited displacement of the heart and absence of intercostal bulging, normal respiration under the clavical with abrupt change lower down to the amphoric and metallic sounds of pneumo-thorax, the latter sounds may be transmitted and heard loudest over the epigastrium. In pneumo-thorax the normal breath-sounds would not be heard in the upper part of the thorax.

Abscess of the liver is often impossible of differentiation. Microscopic examination of the pus obtained with the needle may show hepatic cells, or bile pigments may be demonstrated chemically. A history of amoebic dysentery would favor liver abscess, while appendicitis is more often followed by subphrenic abscess. As a rule, pain in the shoulder is more often associated with subphrenic involvement than with hepatic abscess, and the pus is less apt to be offensive in the latter. Paralysis of the diaphragm is not apt to be present with liver abscess unless the disease reaches the diaphragmatic surface and the pus of a tropical abscess is of a characteristic light chocolate color.

The prognosis is always grave and increases with the length of time the disease has existed. The general mortality of all cases in a large series, operated or not, was 56 per cent., while with the establishment of early drainage, this has been reduced to from 30 to 35 per cent. About 15 per cent. of the cases, if left to nature, drain themselves either through the tho-

racic wall or by perforation into a bronchus or some part of the alimentary canal.

The method of draining these abscesses varies with the location of the pus, and must be determined by the use of the exploring needle, unless a localized œdematous bulging is apparent, when this is incised in the most prominent part as an ordinary abscess. If the condition is preceded by previous abdominal disease, the seat of the primary trouble should be carefully examined, as not infrequently these accumulations are but extensions from a primary abscess cavity, and its drainage will suffice for both. When pus is obtained with the needle at no great depth at the sides of the thorax, the procedure of choice consists in separating the pleura from the surface of the diaphragm without entering the pleural cavity and reflecting it well beyond the proposed sight of incising the diaphragm. This is best accomplished by a resection of two to three inches of the ninth rib between the anterior or posterior axillary lines, or ninth and tenth ribs, if more room is needed. In the upper part of this wound the reflection of the pleura will be readily recognized, and its separation is usually accomplished without difficulty. The exact position of the pus beneath the diaphragm may again be determined by the needle, which is then used as a guide to the incision, which is made in the direction of its muscle fibres. If, after your resection, there is any doubt as to the existence of pus in the pleura, the needle is a safe method of settling the question. Should the pleural cavity be accidentally opened in the separation of the pleura, it should be tightly sutured and securely packed off in the upper part of the wound. The complementary pleural space is sometimes obliterated by

adhesions and the pleura is firmly adherent to the diaphragm. This, when present, affords the best protection to the pleural cavity, while the pus cavity may be entered without identification of structure and with the belief that an empyema has been drained. At times it is possible to drain abscesses through the wide attachment of the diaphragm at the side of the thorax without disturbing the pleura. The possibility of this, however, can only be determined after your resection. In deeply seated abscess, where pus is located under the dome and obtained with the needle only at depth, the trans-pleural route is usually resorted to. Here the resection is best made a rib higher, and by making firm upward pressure of the liver before incising the pleura, the parietal and diaphragmatic surfaces may be so closely approximated as to prevent the entrance of air into the cavity. The adjacent pleural surfaces are then carefully sutured, shutting off the pleural cavity, and the abscess opened through the diaphragm. If impossible to suture the parietal to the diaphragmatic pleura, properly placed packing will often suffice to protect the pleural cavity from infection. Exploratory laparotomy may at times be necessary to clear up the diagnosis, location and best means of draining obscure locations of pus in this region.

#### REPORT OF CASE.

On the evening of February 1st, last, I was called in consultation to see a little girl of nine years who had been suffering for some time from an obscure condition and was becoming greatly prostrated.

She had been a comparatively healthy child, without previous attacks of serious illness, but had complained occasionally for the past two or three months of distress in the stomach and slight pains



in the epigastrium. Upon January 17th, while on her way to church, she was taken suddenly with intense pain in the abdomen and vomiting. She returned home at once, and after a slight chill, developed considerable temperature. The pain was referred to the epigastrium and continued with such severity as to require opiates. The vomiting continued for four or five days before subsiding, and upon the second day of the illness a considerable showing of bright blood was noticed in the vomitus. The abdomen became intensely tender and rigid, with the development of tympanites on the second or third day. This subsided in about ten days, but the pain and rigidity continued. About this time the lower right thoracic wall became very tender and severe pain in the right shoulder was complained of. The temperature up to the time of seeing her had been fairly constant between 100 and 102½ and the skin was continuously dry throughout. There had been occasional coughing during the entire sickness, but nothing to attract special attention to the lungs.

When first seen, three weeks after the onset, I found the patient apparently suffering great pain. She was intensely restless, and much prostrated, and had been without rest for many nights. There was a temperature of 102, and a small, feeble pulse of 120. On exposing the chest, one was at once struck by the bulging of the entire right lower thoracic wall. The diaphragmatic movements on the right side were absent, but well marked on the left. Liver dullness extended about a finger's breadth below the costal margin, and the right abdominal muscles were rigid. There was marked tenderness throughout the upper abdomen and of the lower thoracic wall. Examination of the right chest showed rapid, shallow respiration in the upper part, with no

movement below. On percussion there was absolute dullness up to the lower border of the third rib in the mammary line, which gradually extended upward to the scapular spine behind. Over this area there were no breath-sounds and vocal fremitus was absent. The intercostal spaces were natural and there was no oedema of the skin. The provisional diagnosis was subphrenic abscess or empyema, the former more because of the peculiar low bulging of the side than from the really pathognomonic history, while the latter was considered possible as occurring secondary to some abdominal inflammatory condition, the intrathoracic symptoms being marked by the original trouble. Next morning, the exploring needle was introduced in the sixth space in the post axillary line, and thick, creamy pus obtained. This, together with dullness extending to upper limits of the thorax in the back, favored empyema, and as the patient was in a critical condition, I hastened to drain the side. A sub-periosteal resection of about two inches of the eighth rib was made, and the pleura deliberately opened through the intercostal space below. The result was a decided surprise by the escape of about a pint of very cloudy, bloody serum. The true condition was at once apparent and the diaphragm, bulging above the wound, was incised with the escape of fully a quart of most offensive thick, creamy pus. A double rubber drainage tube was inserted through the diaphragm and the patient put to bed. There was much shock in the patient's exhausted condition from opening the pleural cavity, and she gradually sank, and died of respiratory failure thirty-six hours after operation. No autopsy was permitted, but the primary cause was undoubtedly gastric ulcer, with perforation, followed by localized suppurative peritonitis in the sub-diaphragmatic space.



## HYSTERIA—CERTAIN MANIFESTATIONS\*

GUY L. CONNOR,  
Detroit.

Hysteria is a very common and markedly wide spread disease. It manifests itself in varied ways and at times the diagnosis is difficult to make. Certain disturbances appear often in the skin of hysterical patients which may aid one in the diagnosis. These changes have a vaso-motor origin at least in part. While they are found associated with other morbid conditions, still they appear so frequently in cases with an hysterical diathesis that I wish to call your attention to them to-day. Before doing so, however, allow me to bring out very briefly certain of the salient points in the anatomy of the vaso-motor system.

There is an association of cells situated in the bulb, the so called vaso-motor center. These largely control certain cells which are located in the ventral horns and the lateral grey matter of the spinal cord (at various levels.) The axis cylinders of these last mentioned cells leave the spinal cord in the main through the anterior spinal roots, and run to the sympathetic ganglia through the white rami communicates, where some terminate in arborizations around the ganglionic cells and others continue in their course, passing through the sympathetic cords and the rami efferentes to terminate in the prevertebral plexuses. The axis-cylinders of the ganglionic cells enter the anterior division of the spinal nerves through the grey rami communicantes. Some pass onward to the spinal cord, through the posterior primary divi-

sion of the spinal nerves, while others run distally in the anterior and posterior primary divisions of the same nerves and supply the vaso-motor fibres to the arteries of the body wall and limbs.

According to Thane, the great and small splanchnic nerves are formed by the union of the roots, given off by certain thoracic ganglia (5-10 and 9-10 perhaps). After perforating the diaphragm, they terminate in the semilunar ganglion, which is a part of the solar plexus. The branches of this plexus are very numerous and accompany the arteries to the principle viscera of the abdomen. The vaso-motor nerves for the arteries of the alimentary canal are found in the splanchnic nerves.

Möbius defines hysteria as "a state in which ideas control the body and produce morbid changes in its functions." One gets a very fair conception of this disease if to the above definition you add that of Gower's—namely: "Hysteria is a morbid state in which the primary derangement is in the higher cerebral centers, although the functions of the lower centers in the brain, spinal cord and sympathetic may be secondarily disordered."

The following vaso-motor disturbances are to be seen in the skin of many of the hysterical cases:—

1.—*Attacks of Pallor Extending Over the Body Surface.* These are parts of what has been called "Splanchnic Storms." They have their origin in emotional disturbances. The result is a sudden dilatation of the splanchnic vascular area, due probably to a temporary paraly-

\*Read before Section on General Medicine at the annual meeting of the Michigan State Medical Society at Grand Rapids, May 26, 1904.

sis of the splanchnic vaso-constrictor center. This is accompanied by a compensatory anemia of the skin, brain or both. Alternating often with these attacks of pallor are certain hysterical brain manifestations and flushings. It is not necessary for me to cite any cases illustrating this form as you have all met with them on many occasions.

2—*Attacks of Flushing or Flush Storms*.—These are also due to a vaso-motor neurosis. There is a sudden constriction of the splanchnic or thoracic vascular area, resulting in a dilatation of the vessels of the surface of the body. This sudden constriction of the splanchnic vessels is in most cases brought on by an emotional condition in the brain. How often have we all seen this condition in hysterical cases? It is an extremely unpleasant and annoying symptom and especially is it so when the attacks are frequent and persistent.

3—*Patches of Congestion, Localized, which Appear Suddenly and as Suddenly Disappear*.—They are due to an abnormal irritability of the peripheral vaso-motor centers. On the neck, just below the ears, is the most common location for these patches. As a rule they are localized to parts of the body usually pale. They are not raised above the surface of the skin. Under pressure they disappear, showing there is no exudation. Their outline is irregular and they terminate abruptly.

4—*Erythromelalgia*.—This consists in redness with swelling or congestion of the extremities, accompanied by pain and acroparæsthesia (tingling or numbness, pin and needle sensations in the extremities). Although its course is paroxysmal, it is more or less chronic in its duration.

There are in the main three causes of arterial hyperæmia:

(a)—Agencies which have a weakening or paralyzing effect on the involuntary muscular fibres of the middle coat of the arterioles, such as fatigue or cold (prolonged).

(b)—Paralysis of the vaso-constrictor fibres.

(c)—Excitation of the vaso-dilator fibres.

Erythromelalgia is probably due in part at least to (b).

In Savill's series of 45 cases, 39 showed either evidence or gave a history of hysterical manifestations. Erythromelalgia can be put down as an expression of a vaso-motor neurosis plus, a toxæmia in varying proportions.

5—*Dermatographia*.—If one draws over the skin some blunt article like the end of a match, in a certain number of cases a line of congestion will follow the course of the blunt article. By some this is regarded as a stigma of hysteria, by others as toxic. It is probably true that this condition indicates the presence of a toxæmia, which very often has a gastrointestinal origin or some other cause of irritability of the nervous system.

6—*Exudative Skin Conditions*.—There are three varieties: urticarial, erythematous and hæmorrhagic. They may be produced by a toxic state of the blood, by neuro-vascular and emotional influences or by the combination of the two.

Urticaria is due to auto-intoxication, arising from the alimentary canal in a large proportion of cases. It may, however, be caused by emotion without any gastric disturbance. Wright reported a case of a young surgeon who had no apparent gastric trouble who could produce an attack of urticaria by fixing his

mind on the subject. Crocker writes: "Everything in urticaria points to its being primarily a vaso-motor disturbance, direct or reflex, central or peripheral." Quinke's disease or angioneurotic oedema is now thought to be a angioneurosis. In my own somewhat limited practice I have seen five cases of this disease. Four showed evidences of an hysterical diathesis. The fifth was in an infant suffering with summer diarrhoea.

Erythematous and purpuric effusions into the skin have a less constant relationship to hysteria than any of the preceding forms.

7—*Ischæmic Conditions which are Localized.*—Localized ischæmia is due to a vaso-motor spasm of the arterioles of a given part, usually one of the extremities. There is probably a stimulation of the vaso-constrictor fibres. The skin may have a normal appearance or it may appear white. This latter is apt to be true if the extremity is involved. Ormerod writes: "Hysterical patients may present curious symptoms in the domain of the arterioles and capillaries. Limbs that are paralyzed or anesthetic may exhibit also ischæmia, that is to say when cut or pricked they bleed less freely than normally or not at all. This is commonly ascribed to a vaso-motor spasm."

#### Summary—

1—Certain vaso-motor disturbances are found more or less frequently in hysterical cases.

2—Generalized pallor of the body surface and flushings are part of the "splanchnic storms" which are more often found in hysterical and neurasthenic patients than in any other class of cases.

3—The congestive patches constitute visible evidence of the reflex excitability of the local vaso-motor mechanism.

4—Erythromelalgia, dermatographia and the exudative skin conditions are produced by the vaso-motor neurosis plus toxic changes.

5—The same etiological factors hold in regard to ischæmia. In this group of cases, however, you have a vascular spasm only.

6—Among the co-operating causes which are sometimes in operation, may be mentioned toxins of gastro-intestinal origin, articles of diet, traumatism and toxins of insects.

7—Without a vaso-motor instability, inherited or acquired, these can not act.

8—It is interesting to note that some writers believe that auto-intoxication of gastro-intestinal origin plays a most important part in the causation of hysteria. If this is so, the etiology of exudative skin conditions and of hysteria are brought close together.

#### Lymphatic Constitution—Care of the Lymphatics During and After Surgical Operations.

##### Conclusions:

1. In constitutio lymphatica, we have a general condition of low vitality, of predisposition, of slight resistance, together with an extremely fertile soil for the propagation and development of pathogenic bacteria.

2. Given this condition we must change our prognosis and assume a graver one in the presence of any work involving fright, shock or possible infection. This last possible infection is, I think, a cause of death, which must be consid-

ered prominent in some cases. I refer to the possibility of the introduction of foreign material through the lymphatics at the time of the operation.

3. Care of Lymphatic Vessels: In operating on diseased glands, I dissect them to the point of exit of the vessel, which I then tie as I would an artery or vein. This method also prevents some hæmorrhage.

4. Care of Lymphatic Spaces: These are filled with sterilized vaseline or a thick ointment, thus occluding the lymphatic spaces and smaller vessels.—(*Annals of Surgery*, May, 1904, FREDERICK GWYER.)

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JUNE, 1904

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### Editorial

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#### A NEW CODE OF PROFESSIONAL ETIQUETTE.

The relations of doctors change with the evolution of civilization. Their latest statement by the Medical Faculty of Paris, goes into force June first, 1904, and is said to meet the approval of both profession and laity in France. It consists of one hundred and twelve articles. To the more important only is attention here directed.

In the matter of fees absolute liberty is accorded physicians and their patients to make such arrangements as they deem best, suggesting that the fees of the older and more prominent physician be larger, and vary with the financial ability of the patient. Urgent or protracted visits should obtain a double fee. Suit for payment is to be made only after repeated requests, and the amount verified by a committee of the Faculty.

The dividing of fees between physicians and specialists is forbidden under any circumstances.

No physician can take an interest in any enterprise for the manufacture or sale of patent medicines or the exploitation of mineral waters. It is forbidden to divide recompenses between physicians and druggists, or midwives or directors of therapeutic institutions of any description.

Physicians guilty of participating in the profits of hotels, water or air cure, etc., resorts, will be dropped from the rolls of the profession.

Professional advertisement of every sort is forbidden, as is the publishing of articles in the newspapers inviting publicity to any pharmaceutical preparation or special method of treatment.

In consultation no physician should publicly blame the attending physician, but reserve criticism for his colleague's private ear.

In general it is said that it is better not to inform a patient of his incurable disease, but in tuberculosis it is necessary, that others may escape infection. In cancer the information may be imparted with tact, to the relatives first and then to the patient.

Hereafter all medical students will receive medical degrees only as they promise to conform to this code. Space forbids mentioning numerous other points.

The occasion for this remodeled code was the outburst of charlatanism marked with periodical tours throughout France by practitioners and inventors of nostrums heralded in advance by flaming posters and advertisements, announcing their arrivals at certain towns on given dates, inviting all the sick and feeble of the locality to come and be cured. If only it gains the support of the laity, success is assured, as on such support charlatanism thrives as does legitimate medicine.

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#### FAMILY PERIODIC PARALYSIS.

This is a disease which is unique in its manifestations, obscure in its pathology and rare in its occurrence.



*Symptoms.*—The paralysis is of a periodic motor type, which involves all the voluntary muscles save those of the face, eyes, tongue, organs of speech, deglutition and the sphincters of the rectum and bladder. The paralysis may be complete or partial, localized or general. The bowels almost never move during a paroxysm and the urine is seldom voided. There are no psychic symptoms. The mind is clear. The special senses are not involved as a rule. There is very little sensory disturbance. During an attack of complete paralysis, the reflexes and the faradic excitability are abolished in the affected part. These return on restoration of motor power. The attacks last from a few hours to several days. The recovery from a paroxysm may be abrupt, requiring in some cases only a few hours.

*Prognosis.*—A large majority of cases get over the attacks, while a few will die in a severe paroxysm.

*Pathology.*—George E. Holtzapple\* regards the condition as a vaso-motor neurosis affecting the blood supply to the anterior horn cells, which are almost wholly supplied by the anterior spinal artery. The exciting cause, be it toxic, may have a direct influence on the vaso-motor nerves, regulating the blood supply to this part of the central nervous system, or it may have an indirect influence when due to gastro-intestinal disturbance or when paralysis results from sleeping in a draft. The progressive permanent paralysis, the doctor thinks, is due to a slow, progressive, degeneration in the anterior horns, caused by the frequent disturbance of nutrition.

*Treatment.*—The patient is given potassium bromid dram  $\frac{1}{2}$ , and caffein

citrate grains 1 to 2. This can be repeated in one or two hours. While this treatment will not cure it has a decidedly abortive influence. It hastens improvement when taken during a paroxysm. Prophylaxis is most important when the exciting causes are known.

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### PATENT MEDICINES.

It is with considerable satisfaction that we observe the awakening (partial at least) of the lay mind to the dangers lurking in patent or rather secret medicines. A number of the most influential magazines have gone so far as to decree that they will insert no advertisements of such a character—a commercial sacrifice at no mean cost. This has been followed by a very strong editorial in a recent publication on the alcoholic contents of the leading proprietaries, showing that this varies from 12 to 47½ per cent., according to the report of the Analyst of the Massachusetts State Board. He compares them to wines and beers, to the great disadvantage of the former. While this is in a sense unfair, as the dosage is not ordinarily equivalent when directions are followed, it is quite true in many cases. As an example take a late patient of mine who suffered from alcoholism due to using one, two, and three bottles of Malt whiskey per diem. This man had been a total abstainer, but reading the advertisements in the paper, was induced to use it to his own final great disadvantage. Many of our religious papers, suffering from small incomes derived from short subscription lists, have allowed some of the most objectionable of these "ads" to buy their way into the homes of many credulous

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\**American Medicine*, April 30, 1904.

people who think that everything in such a paper is gospel truth. Some men in the ministry have also permitted their names and pictures to go into print with testimonials of these preparations. However, there are representative papers and ministers who are as much opposed to such practices as we ourselves are. We vividly remember the strong support of the Detroit Journal in the successful campaign waged against the nasty "ads" during the session of the last State Legislature. The dawn of a better day is certainly at hand when the clouds of ignorance beneath which the patent medicine evil thrives, will have lifted.

W. J. WILSON, JR.

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#### RAISE OF FEES AT COLLEGE PHYSICIANS AND SUR- GEONS, N. Y.

Columbia University announces that the tuition at the College of Physicians and Surgeons next year will be two hundred and fifty dollars. It is to be hoped that such instruction will be given by the faculty that the students may cut private quizzes and so save one to two hundred dollars expense. Had the fees been made equal to the combined fees of the college and the private quizmasters, and the faculty did the work of both, all except the quizmasters would be advantaged. It would not matter that these aggregated four hundred dollars yearly, —provided the students got four hundred dollars worth of actual teaching. That the classes were reduced would have given the students a closer touch with teachers, and the teacher an opportunity to mould each student into a better

physician—in short the future profession emanating from the school would have been of a higher grade. The students protested against the raise of fifty dollars, but it does not appear that the protest was heeded. The teaching of medicine grows more expensive yearly, because more personal instruction in laboratories and hospitals is demanded. Public opinion should insist that such be furnished, or the medical college close its doors. If organization of the medical profession fails of this end, its members will have neglected both the interests of scientific medicine, of the profession in general and the laity. Once quantity, irrespective of quality, controlled the production of doctors; now when the market is overstocked, quality irrespective of quantity should control.

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#### THE PASSING OF THE TERM "IDIOPATHIC SUPPURATIVE PERIMENINGITIS."

Primary or idiopathic suppurative perimeningitis is a very rare disease. Medical literature contains the records of twenty-four cases and only thirteen of these are worthy of analysis. J. Ramsey Hunt\* asserts that there is not a single one of these thirteen recorded cases which does not accord perfectly in its clinical and pathological manifestations with our present conception of acute infectious osteomyelitis of the spine. He thinks the perimeningitis has its original focus in the spinal bones. This focus may be so small however as to escape notice. It is of great importance that stress

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\**Medical Record*, April 23, 1904.

should be laid on the focal spinal symptoms as not only indicating the true nature of the affection but also the immediate necessity and site for the operation. The operation of choice is a double laminectomy as suggested by Chipault. This procedure give the most perfect drainage.

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### PROTECTION OF PHYSICIANS AGAINST BLACKMAIL.

Most malpractice suits are simple blackmail. A patient, well served by his physician, refuses to pay his bill. Talking the matter over he finds a miscreant—mis-called doctor—who tells him he has a case and advises consulting a miscreant lawyer, who takes the case on speculation. A demand for damages is made of the doctor, and a bluff made of beginning suit. If the defence be weak-kneed the suit goes on, with all the uncertainty of a jury trial, and a probable mulcting for damages.

The number of these and allied suits is larger than generally supposed, because most never reach the public. Statistics show that during the past few years in the United States one out of every one hundred and fifty physicians has been sued for alleged malpractice.

Two years ago the New York State Medical Association began to protect its members. The *Medical Record* says that this protection has decreased the number of these suits. In only three cases has the action been placed upon the calendar for trial, showing that the public, even after

one year, felt the force of organized defence.

The Chicago Medical Society has been even more successful during the same period. Two other representative medical bodies have adopted similar methods of defence.

Not only is the defence most effective, it also is far less expensive. In one society the cost to the members fell in one year from ten thousand dollars (paid medical defence corporations) to one thousand dollars, with the prospect of being far less when the system became perfected.

There is no reason why any considerable medical organization might not follow the methods alluded to and members sleep in the consciousness of an impregnable defence, pay far less than now for an effective protection, and draw closer to each other in all professional relations.

It is known that Detroit pays more than two thousand dollars yearly to stock companies for protection. Records of medical defence through the organized profession, make evident that this defence could be had much more economically through the Wayne County Medical Society. It is hoped that some wide awake members will take up the project and place it before the Society in a practical form. Later it may be brought before the State Society. Such a move would tend to solidify the Local and State Society by making more evident the value to the individual of such organization.

The success of the Chicago Medical Society has spurred the Council of the State Society to commend it to the consideration of that body, with a prospect of its adoption.

## County Society News.

### HOUGHTON COUNTY.

Houghton County Medical Society met in Calumet on March 7th. T. A. Felch, Councilor for the Twelfth District, gave a talk on the State Organization. After complimenting the Society on the work it had done, he urged the members to go on with the good work until every eligible physician in the counties of Houghton, Baraga, and Keweenaw became members. In closing he made the assertion that in the near future every physician who was not a member of his County Medical Society would be at a decided disadvantage.

H. M. Cunningham, of Marquette, read a paper on "Nasal Obstruction," and exhibited a number of specimens. He said: "We get just as satisfactory results in the treatment of these cases as we do in eye work."

A. F. Fischer, of So. Lake Linden, presented a paper on "The Present State of X-Ray Therapeutics."

*Abstract.*—Since the discovery of this ray by Röntgen, in 1895, the atom and molecule which were considered to be the smallest particles into which matter could be divided, are now considered quite large bodies, compared to the corpuscle of Prof. Thompson. Lord Kelvin has demonstrated these latter to be one twenty-five millionth of an inch in diameter. These corpuscles are discharged with tremendous velocity under certain conditions: 1st, from a negative electrode in a Crooks tube; 2nd, from objects impinged upon by the cathode ray, giving X-rays; 3rd, from very hot bodies, such as incandescent metals, etc. These corpuscles are capable of carrying a tiny charge of positive or negative electricity. A stream of these proceeding from the cathode and impinging on a target causes the X-ray to emanate. The therapeutic application of the X-ray has been based upon the following qualities: 1st, they cause atrophy of certain structures; 2nd, they cause destruction of certain pathological tissue; 3rd, they destroy certain organisms in living tissue; 4th, they have an anodyne effect; 5th, they have a stimulating action upon the metabolism of tissue; and, 6th, they may cause destruction to normal tissue. These qualities of the X-ray make possible its use in the following diseases: Acne, carcinoma, sarcoma, tuberculosis, lupus vulgaris, syphilis, tinea flavus, and painful and inflammatory conditions.

Meeting adjourned.

JAMES HOSKING,  
Secretary.

### HURON COUNTY.

The second annual meeting of Huron County Medical Society was held in Bad Axe, Monday, Jan. 11th.

The election of officers resulted as follows: Pres., W. J. Herrington, Bad Axe; Vice-Pres., F. E. Luton, Kilmanagh; Sec. and Treas., D. J. McColl, Elkton; Member Board of Directors, A. M. Oldfield, Harbor Beach; Delegate to Michigan State Medical Society, Daniel Conboy, Bad Axe; Alternate, C. B. Morden, Pigeon.

After the meeting a banquet was given the members and visitors by the retiring officers.

D. J. McColl,  
Secretary.

### JACKSON COUNTY.

Jackson County Medical Society held its regular quarterly meeting April 5th, at Jackson. There were 29 members present. The meeting was called to order by President D. E. Robinson.

F. W. Rogers presented a paper on "Conservative Gynecology."

*Abstract.*—Classification of diseases of female sexual organs:

1. Those of congenital origin.
2. Those of inflammatory origin (infectious).
3. Traumatic origin.
4. Those dependent upon derangement of the general system.

The first class of cases are most discouraging to handle without operation, whether the treatment undertaken be medicinal or mechanical. In atresia, deformed cervixes, imperforate hymen, the treatment is not only surgical—it is operative.

The second class of cases offer better opportunities for success of non-operative procedures. The infections of the vulva, vagina, and of some of those of the cervix, may be treated by the application of medicinal substances to the diseased surface, but in a large proportion of cases the infection has involved the uterine canal or even the Fallopian tubes. Two obstacles prevent the application of medicines to the uterine canal; (a) smallness of canal; (b) the adherent secretion. Neither by cotton wound on an applicator, nor by injecting with a uterine syringe, can one get the medicines directly upon the inflamed mucous membrane. We must dilate the canal under aseptic precautions and under anesthesia apply the medicines properly. Less careful attention to detail means we stir up greater trouble than we are asked to treat. When



we remember the great probability of the infectious process sooner or later extending to the tubes, with the enormous possibilities of danger in such an event, which shall be called the conservative treatment, the ineffectual indiscriminate treatment, or an early aseptic dilatation and curettement? Given a tube distended with pus, is it conservative treatment to apply remedies to the vaginal vault, ice, poultices or blisters to the abdomen, massage of the tube, the grand-stand play of electricity which does more harm than good, or to promptly operate, save the suffering and exhaustion and sepsis by making an outlet at a place affording the most direct drainage?

Those troubles due to traumatism also cover a very large class. Retroversions, prolapse, rectocele, hypertrophies of the cervix, ulceration of the cervix (so-called), and the vast majority of recto-vaginal and vesico-vaginal fistulæ, come under this head. Conservative treatment here is to properly diagnose the lesion, then to remove cicatricial tissue and repair.

Those diseases which are dependent upon diseases elsewhere are not a large class, and there is a question if they should be classed as gynecological diseases. They follow the fortunes of the primary disease, and usually call for no special therapy other than that for the original trouble.

In general, in a purely gynecologic case, when the diagnosis has been correctly made of the condition and of its causation, it will be found that there is little of real curative therapeutics that is not surgical, and operative at that, and also that the most truly conservative gynecology is often early operation of some kind.

#### Discussion—

N. H. Williams—I was interested in the paper, especially in the application of the term "conservative." What may be conservative to one person may be radical to another, depending upon one's temperament. It is a good question to ask oneself: Is a case curable or non-curable? If it is curable without operation, that should be done. A mistake often made by surgeons is the operating upon neurotics. They go the round, have operation after operation with no results, and become a reproach to the profession. Time is a conservative agent, and where a disease is amenable to treatment, and where patient has means and is not compelled to work, it is the best agent. Of course pus tubes and new growths should be removed. Otherwise the removal of uterus and ovaries should be postponed.

T. S. Langford—Conservative gynecology should be prophylactic. The young practitioner sees many cases of gonorrhœa in the male, and ceases to wonder at the prevalence of disease in the female.

The Society then adjourned to the operating room of the Jackson City Hospital, where they witnessed two laparotomies and a curettage and tracheolorrhaphy skillfully performed by Reuben Peterson, of Ann Arbor.

R. GRACE HENDRICK,  
Secretary.

#### MONROE COUNTY.

The quarterly meeting of the Monroe County Medical Society was held in Newport, April 21st.

C. T. Southworth, of Monroe, read a paper on "The Pancreas and Its Diseases, With Report of a Case."

#### Abstract—

1. Physiology of pancreas.

2. Diseases of pancreas—Rupture, cysts, calculi, hæmorrhage, acute gangrenous and suppurative pancreatitis, chronic pancreatitis and cancer of the pancreas.

3. Report of a case.

On March 14th, 1904, at 8 p. m., I was called to see A. H. W., male, age 55, a bachelor and lumber dealer. I found him suffering intense pain in the epigastric region, accompanied by some nausea and moderate tympany. The temperature was normal, pulse 100 and weak, and tongue fairly clean. The patient had made a diagnosis of acute indigestion and I saw no reason at that time for differing with him. He had taken a dose of sodium bicarbonate in hot water and I administered a Seidlitz powder and left him.

Two hours later I was hurriedly called again. I found him in the same condition as when I left him, except that a cold perspiration stood out upon his forehead. I then questioned him more closely and found that this pain had come on him very suddenly while he was in the barber's chair at 5 p. m. He had been feeling perfectly well up to that time. He had worked hard all the day, had eaten lightly and had not been drinking as much as usual on that day. I could get no history of injury. At this time the distension of the abdomen was somewhat greater, eyes very dull, pulse weak but regular, thirst intense, tongue parched but no vomiting. I administered morphine sulphate gr.  $\frac{1}{4}$ , nitroglycerin gr. 1-100 hypodermically, and a dose of Epsom salts internally. I remained with the patient all night and watched him

closely, not being satisfied what the trouble was. I was under the impression I had a bad case of gall-stones to deal with. After the hypodermic injection the patient rested until 2 a. m., when he vomited. There was nothing about the vomit that was characteristic of any disease. The patient remained quite comfortable the remainder of the night and I gave no further treatment. At 6 a. m. the bowels had not moved. I gave another dose of "salts." The sweating had almost ceased, the pulse was stronger and the man was comfortable.

I saw the case again at 10 a. m., and found a return of all the bad symptoms, extreme thirst, cold perspiration, weak pulse, abdomen much distended. There was, however, but little pain. The bowels had not moved nor had the patient passed any gas. At this time I told him that he was in a very critical condition. Geo. F. Heath was called in consultation. After an examination he concluded that we had an obstruction of the bowels to deal with. So we went to work with enemas of different kinds, but with no effect whatever. At noon we concluded that a laparotomy was the last resort. T. A. McGraw, of Detroit, was called. After a careful examination, he pronounced it a case of either rupture of the gall-bladder or the stomach. Dr. McGraw made an incision in the abdomen in the median line. The abdominal cavity was filled with a large amount of almost clear fluid. This proved to be the water that the patient had been drinking. It had leaked through the stomach wall. The next thing that attracted attention was a large ulcerated surface the size of my hand. Upon examination of the stomach, a small perforation was found in the lesser curvature. The pancreas was enlarged and hard. The intestines and gall-bladder were normal. Owing to the weak condition of the patient, large drainage tubes were inserted and the wound closed. The patient rallied almost immediately from the anæsthetic and slept fairly well through the night. From this time on he suffered no pain whatever.

The temperature never rose above 101°. The pulse remained about 88 and respiration 22. There was some distension of the abdomen but no tenderness. Nutritive enemas were given every two hours after the first 18 hours and all were retained. The bowels moved naturally about once a day. Everything looked favorable until the morning of the fourth day, when the pulse began to fail and the temperature to rise. There was some delirium and the abdomen was more distended. The patient died at 9 p. m. that night.

We did not have a post mortem but I remained with the undertaker and we opened the wound and made a further examination. At this time we found a large abscess of the pancreas.

After the operation, the urine was examined and a slight trace of sugar was found. Otherwise the urine was normal. The white or grayish substance we took to be an ulceration proved to be fat necrosis. From the amount of fat necrosis present, it is evident that this disease had been present in the man for some time. Upon the very closest questioning we were able to find but two complaints in his entire make-up, viz., constipation and a sleepy feeling. The two symptoms he was able to trace back for over a year. He never suffered any pain. He always had a good appetite and a most perfect digestion. In fact so far as he or anyone else ever knew, he was a perfectly well man until he was stricken on Monday, after being about his work all day.

GEO. F. HEATH,  
Secretary.

#### MONTCALM COUNTY.

Montcalm County Medical Society held its regular meeting at Howard City, April 14th. Fifteen members were present. Drs. J. D. Whelpley and N. Nelson, both of Howard City, were elected members, making the total membership of the Society 26. This is a gain of two over last year.

A. W. Martin read a paper on the "Therapeutics of Ergot." W. P. Gamber, who passed the winter in Augusta, Ga., gave a very interesting talk on Southern medicine. L. S. Griswold presented a paper on the "Surgery of the Head." J. Black read a paper on "Diphtheria."

#### Abstract—

He advocated the early use of antitoxin. Alcoholic stimulants are of the greatest value. There is more danger in giving too little than too much. The high fever should be combated by sponging and baths. Antipyretic drugs should be avoided, because of their depressing effects. In rapid heart failure, moderately large doses of morphine hypodermically should be used. There should be plenty of sunlight and fresh air in the room. Cleanliness of the parts should be had by frequent removal of decomposing materials and disinfection of the discharges. Insist upon the recumbent position and avoid all exertion on part of the patient.

Meeting adjourned.

H. L. BOWER,  
Secretary.

## WAYNE COUNTY.

GENERAL MEETING, APRIL 28, 1904.

C. G. Stockton, of Buffalo, presented a paper on "Tubercular Pericarditis." After giving the histories and autopsy findings in three cases, the doctor drew the following conclusions:

1. Tubercular pericarditis is not a rare affection.
2. The diagnosis is usually not made except in cases having simultaneously active tubercular processes in other parts.
3. The concurrence of pleurisy with blood-stained effusion may be regarded as suggestive.
4. The pericarditis may be of a chronic obliterative type or there may be massive effusion, generally sanguinolent but rarely purulent.
5. It may be acute, continuing for not a few weeks, or chronic, existing for many months.
6. It may be a part of a multiple serositis, and the proportion of cases in which at least one or more of the pleural cavities are involved is remarkable.
7. The disease is to be regarded as a secondary affection, although from a clinical point of view, some cases may be looked upon as primary.
8. The point of origin of the infection is often found in the bronchial and mediastinal lymph nodes, although these may be quite exempt from the disease. The infection may be direct from continuity of tubercular tissues or by transmission through the lymph vessels or through the circulation.
9. The heart may be greatly enlarged or normal size or even somewhat small.
10. Some observers believe that occasionally the process subsides and that comparative cure results.

**Miscellaneous.**

## NEWS ITEMS.

The Canadian Medical Association will hold its annual meeting at Vancouver, B. C., August 23, 24, 25 and 26, 1904. The President and Executive Committee of this Association extend a cordial invitation to all the members of the Michigan State Medical Society to be present at this meeting.

The annual meeting of the American Medical Association will be held at Atlantic City, June 7-10, 1904.

The American Academy of Medicine will hold its twenty-ninth annual meeting at the Shelburne Hotel, Atlantic City, June 4 and 6, 1904.

The Tri-State Medical Society of Iowa, Illi-

nois and Missouri will meet in St. Louis June 15-17, 1904.

The Nebraska State Medical Society held its thirty-sixth annual meeting at Omaha, May 3-5, 1904.

The French Congress of Alienists and Neurologists will hold their 14th annual meeting at Paris, August 1-7, 1904.

The International Congress of Ophthalmology will meet in Lucerne, September 13-17, 1904.

The Royal London Ophthalmic Hospital (Moorefields), was founded one hundred years ago. It was the first and has remained the largest eye hospital in the world. It was founded and is maintained as a pure charity, supported by private contributions. The most celebrated English ophthalmologists have made its reputation, as Wm. Bowman, Geo. Critchett, Jonathan Hutchinson, and others.

The fate of doctors who endeavor to correct abuses in public institutions is illustrated by that of Dr. Wm. D. Robinson, of Philadelphia. For several years he had been resident physician of the Eastern Penitentiary. Later he was appointed a member of the Board of Inspectors, and became especially active in investigating and exposing abuses—result, removal by the Governor. It seems universal that public institutions under political control must be given over to plunder by incompetent or dishonest henchmen, and that reformers are summarily bounced.

Dr. William T. Bull has resigned his position as Professor of Surgery in the College of Physicians and Surgeons, New York City. Dr. George E. Brewer, Professor of Clinical Surgery, has taken his place.

The College of Physicians, of Philadelphia, Pa., the owner of one of the largest medical libraries in America, has decided to remove to the corner of Ludlow and Twenty-second streets, and erect a modern, commodious building at a cost of a quarter of a million dollars—so prosperous is this medical organization. It exists not to make more doctors but to develop those already made. Not a little of Philadelphia's medical prominence has been founded on the facilities afforded by this institution.

New York has abolished the antiquated coroner system. A Board of Medical Examiners appointed by the Mayor, takes its place. Suspicious cases are to be examined in the presence of the district attorney and one policeman. It is time the same was done in Michigan, as its practical work-



ing has been most satisfactory in Massachusetts and elsewhere.

It is announced that the Agricultural Department at Washington has discovered a substance which will destroy typhoid germs in stagnant water. Sanitarians doubt this claim; outsiders await the results of studies by others.

It is said that the germ of mumps has been discovered by Dr. Samuel Darling of Baltimore City Hospital.

The St. Louis Court of Appeals has decided that physicians who are also druggists cannot fill their own prescriptions if the main ingredient be whiskey, as this would remove the check to the sale of whiskey, established by law.

Dr. and Mrs. C. S. Cope, of Ionia, celebrated their 25th anniversary on April 23rd.

John G. Goode, in the *Charlotte Medical Journal*, reports a case of a child born with its heart outside of its body. The labor was normal and the child weighed 5½ pounds at birth. The heart protruded from the chest through an opening just large enough to permit the vessels to enter the chest cavity. The opening corresponded in position with the second piece of the sterum (gladiolus). The child did well for some days but the walls of the heart gradually got thicker and thicker. At the end of sixteen days the child died. From the birth of the child the heart was kept anointed with olive oil and protected from all clothing, etc., with a paste board appliance, cone-shaped, placed over the organ.

The Louisiana State Medical Society held its 25th annual meeting at New Orleans, May 10-12, 1904.

At the close of their college years and preceding their commencement exercises, the Detroit College of Medicine and the Michigan College of Medicine and Surgery entertained their alumni by lectures, clinics at the hospitals, receptions and dinners.

#### CHANGE IN MEMBERSHIP.

(April 15th to May 15th.)

##### NEW MEMBERS.

- C. W. Armitage, Port Hope, Mich.
- O. C. Bowen, Manistique, Mich.
- J. D. Brook, Grandville, Mich.
- W. T. Campbell, Brown City, Mich.
- G. H. Chappell, Grand Rapids, Mich.
- G. C. Christmas, Harbor Beach, Mich.
- J. A. Clark, Cascade, Mich.

- J. Corcoran, Ubly, Mich.
- W. H. Fulton, Bad Axe, Mich.
- W. A. Giffin, Ubly, Mich.
- F. A. Kinsey, Three Rivers, Mich.
- R. Leuschner, Mt. Clemens, Mich.
- M. C. McDonnell, Bad Axe, Mich.
- C. B. Morden, Pigeon, Mich.
- J. O. Nelson, Howard City, Mich.
- J. H. O'Dell, Three Rivers, Mich.
- W. J. Saunders, Soule, Mich.
- W. J. Shilliday, Lake Ann, Mich.
- A. Toal, Peck, Mich.
- J. W. Weed, Brown City, Mich.
- J. D. Whelpley, Howard City, Mich.

##### CHANGE OF ADDRESS.

- J. H. Braily, Kalamo, Mich.
- W. C. Conley, Ironwood, Mich.
- W. D. Kean, Michigamme, Mich.
- A. C. McKinnon, Mio, Mich.
- J. A. Vernier, 216 24th St., Detroit, Mich.
- L. Westcott, Madison, Wis.

#### BOOKS RECEIVED.

VON BERGMANN'S SURGERY.—By Drs. E. von Bergmann, P. von Bruns, and J. von Mikulicz. Edited by William T. Bull, M. D. Vol. II. Lea Brothers & Co., Philadelphia and New York, 1904.

MUSSER'S MEDICAL DIAGNOSIS.—New (5th) edition.—By John H. Musser, M. D. Lea Brothers & Co., Philadelphia and New York, 1904.

MANUAL OF MATERIA MEDICA AND PHARMACY.—By E. Stanton Muir, Ph. G., V. M. D. F. A. Davis Co., Philadelphia, 1904.

PROCEEDINGS OF THE CONNECTICUT MEDICAL SOCIETY, 1902.

TRANSACTIONS OF THE AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION, 1903.

### Correspondence.

Mt. Clemens, April 20, 1904.

Editor of *The Journal of the Michigan State Medical Society*:

Dear Doctor.—Several of the physicians complain that the name of Dr. M. C. Cronin, of this place, appears in Polk's Medical Register (1904 edition) as a member of The American Medical Association and of The Michigan State Medical Society. As you know, he was deposed two years ago from membership in the latter body for unprofessional conduct. I should like to know if this cannot be corrected by the State Journal and The Journal of the American Medical Association?

Yours very truly,

JOSEPH M. CROMAN,  
Sec'y Macomb Co. Med. Soc'y.



## Book Notices.

Under the charge of

RAY CONNOR.

**DISEASES OF THE NOSE AND THROAT.** By Charles H. Knight, M. D. 143 illustrations. Octavo; 423 pages. Cloth; \$3.00 net. P. Blakiston's Son & Co., Philadelphia.

Few text-books are written with so unbiassed and judicial a mind as the one before us. At times one almost wishes the author had been more of the advocate and less of the judge and had given a little more decidedly his personal experience in the matter under discussion. The book is based on the author's lectures to the Cornell students and despite the fact that he refers to other text-books for the details of the anatomy, enough has been included to satisfy the average reader. The effort has been made to give credit to the original sources but space did not permit a complete bibliography.

The nose and its accessory sinuses with their diseases receive the first attention. The chapter on the sinuses is especially good. The methods of diagnosis and treatment are clearly and conservatively given from the antral puncture to Luc's radical operations. Then the pharynx and finally the larynx are considered systematically. In the removal of the tonsils the Mackenzie tonsillotome receives the place of honor for its simplicity, safety and efficiency. As regards carcinoma of the larynx, he differs greatly from J. N. Mackenzie and concludes that conditions so extreme as to require a complete laryngectomy render a case inoperable.

There is no padding in the work and a surprising amount of valuable information has been crowded into what appears at first sight to be a rather small book. The author's style is scholarly and concise. He displays a thorough acquaintance with the extensive literature of the subject as well as a clear estimate of the relative value of his facts. The illustrations, many of which are of instruments, although some are from the author's specimens, add much to the value of the work. The letterpress and mechanical features of the book are excellent.

The work can be most heartily recommended to those who want a complete, yet comparatively brief resumé of the subject up to date.

**MANUAL OF CLINICAL MICROSCOPY AND CHEMISTRY.** By Dr. Herman Lenhartz of Hamburg. Authorized translation by Henry T. Brook, M. D., of New York. With 148 illustrations and 9 colored plates. Pages xxxii—412, Octavo. Cloth, \$3.00 net. F. A. Davis Co., Philadelphia, 1904.

Prof. Brooks' experience in teaching many hundreds of graduate physicians has been of

great service to him in translating this work. The many additions from his pen have added greatly to the usefulness of this book to the general practitioner. Thus, for hæmoglobin estimation he recommends the Talquist scale as the best method yet devised for everyday use in practice. This is not even mentioned by the author amongst a number of others more accurate, perhaps, but taking more time and expensive apparatus.

The translation is based on the fourth German edition and includes a wide range of subjects. Vegetable and animal parasites are given the first consideration. The position of bacteria in the vegetable kitchen is shown schematically. The common pathogenic organisms are taken up systematically and described. No references are given to the literature, but the value of the work is much enhanced by brief historical notes, preceding the practical points. Thus, before the description of the tubercle bacillus, the part taken by Villemin, Cohnheim, Baumgarten and Koch in the identification of the disease is concisely set forth. Then follows its morphological, cultured and staining characteristics.

The ectoparasites are passed over with a mere word, although some, such as *Phthivius Pubis* are figured. The entoparasites are taken up at more length, although trypanosomiasis is not mentioned. The blood in health and disease is the next topic considered and includes an article on the Forensic Detection of Blood Spots. The examination of the sputum and the secretions of the alimentary tract furnishes the food for two more sections, while the discussion of the urine and aspirated fluids complete the work.

A fairly complete index adds much to the value of the book. Certain minor discrepancies detract somewhat from the excellence of the whole. Thus, under the description of the tubercle bacillus a reference is made to Plate VII, Fig. 5, where anthrax bacilli are figured. Strangely enough the determination of the molecular concentration of urine is given the name cryoscopy, while the same process with the blood is denied that title.

The work as a whole contains much of value which is so arranged as to be easily accessible to the busy practitioner. It should serve, as its author intends, to disseminate the use of the methods described to the mutual benefit of the doctor and his patient.

## Progress of Medical Science.

### MEDICINE.

Under the charge of

HARRISON D. JENKS.

**Myelopathic Albumosuria.**—Bruce, Lund and Whitcombe report the rare case of Myelopathic albumosuria in a woman, 51 yrs. old, who, in bending over a fire, fractured her left femur. One week after the fracture, while the nurse was lifting the patient slightly, the left clavicle was fractured. Three months later a rib on the left side was fractured. There was marked anæmia, emaciation and lassitude, vomiting and frequent diarrhœa. Vomiting and diarrhœa came on suddenly without pain or effort or preceding nausea. A month later the left humerus was fractured in trying to reach for something under her. Four weeks later she died.

There was nothing in her previous history of importance except that she had partaken of a very spare diet. She had had considerable neuralgic pain in different parts of the body. There was no enlargement of bones during the eight months she was under observation. Examination of urine showed it straw-colored, often syrupy, forming froth on shaking. Odor was aromatic (the odor later was perceptible in the breath). Sp. gr. 1019-1022, quantity 80 to 120 oz. Heat gave a precipitate dissolving on boiling. Cold nitric acid gave a precipitate which dissolved on boiling. Hydrochloric acid gave exactly the same condition as nitric.

At the necropsy about the fractured humerus there was six ounces of pale pink blood-stained fluid giving a gluey feeling. This fluid was found to consist of Bence Jones albumenose.—(*The Lancet*, April 16, 1904.)

**Pseudo-Appendicitis.**—It should be recognized that pain in the right iliac region increased at McBurney's point, intestinal crisis or abdominal symptoms will simulate appendicitis when there is none there. All the symptoms attributed to typhlitis have of late been called appendicitis and even the term and condition have been denied. It is an exaggeration to deny that there can be no typhlitis for there can be an inflammation of the cæcum as well as any other part of the large or small intestine. Follicular, membranous or calculus enterocolitis are common. While formerly we may have exaggerated typhlitis we are now at the other extreme. We may have an enterotyphlo-colitis, more commonly called catarrhal enteritis. He has made a study of muco-membranous colitis in about 2,500 cases and has never found one associated with, or leading to, appendicitis. Yet the crises often simulate ap-

pendicitis, though never fatal. These should be called pseudo-appendicitis.

Intestinal lithiasis, especially studied since 1896, also presents symptoms of appendicitis. It is much more common than is generally suspected. Patients often detect earthy substances in the stools, but they are usually attributed to biliary calculi. These are painful attacks occurring periodically, lasting several days and ending in collapse. In the stools with the sand are found slime and mucus, also false membrane. It coincides with entero-typhlo-colitis. The sand is composed of phosphates and carbonates of lime and ammonio-magnesian phosphates. All his patients with muco-membranous enter-typhlo-colitis showed symptoms of gouty or arthritic diathesis.

**Diagnosis.**—The two forms of enteritis most likely to be confounded with appendicitis are the muco-membranous entero-typhlo-colitis and intestinal lithiasis. While appendicitis is usually of sudden onset the stercoral colitis has a long premonitory period, often imperceptible but got by questioning. Digestive troubles, particularly the paucity of stools and their scantiness, quite disproportionate to the amount of food taken, are the rule. These stools are viscous, brownish, often hard. The appetite is good, the abdomen distended, especially about the right iliac fossa. The stercoral dilatation of the cæcum, especially its shape, the localization of the pain, the absence of cutaneous hyperaesthesia and usually of fever should cause a temporizing diagnosis. The employment of purgatives and injections will clear up the doubt quickly. The presence of slimy or mucous matter, of false membrane will tell that it is entero-typhlo-colitis. Where paroxysmal crisis with feverish condition, intense pain and vomiting (not infrequent in entero-typhlo-colitis) are present, we may mistake them for appendicitis, but usually here we have the history of constipation and digestive troubles with frequent but milder pain in the right side. In appendicitis the onset will be sudden, with no such history. The pain in colitis is not definitely located, but radiates over the colon, especially on a level with the hepatic and splenic flexures. There is also another tender point between the umbilicus and ensiform cartilage. The stools should be carefully examined for slime, false membrane and sand, but the presence of an irregular but true appendicitis should be thought of.—(*Lancet*, April 23, 1904, BOTTENTUIT).

## SURGERY.

Under the charge of

MAX BALLIN.

**Treatment of Fractures.**—Recent fractures should not be put up in immovable dressings, such as plaster of Paris for the first ten days. Splints should be used so that a direct inspection is possible, to see if the fragments are in proper apposition. If a plaster dressing is used, the relative position of the bones should be watched by X-ray examinations.

To make a well fitting, light, and firm bandage, the use of gauze strips impregnated with silicate of soda (soluble glass) is to be recommended. These soluble glass dressings can be cut open and laced. Starched bandages also may often be substituted for the inconvenient plaster of Paris bandage. Certain simple fractures with unbroken skin should at times be operated upon—for instance: fractures of the neck of the femur in people under 55 yrs.; fracture of the upper third of the femur; fractures of patella and olecranon with wide separations. In bad fractures of the clavicle, wiring is indicated. In elbow fractures, in which ankylosis is unavoidable, a resection will give a movable joint. Inability to sufficiently reduce the fragment is another indication to operate primarily.

The formation of callous is evidence that accurate approximation of bones has not been achieved. The presence or absence of callous has marked influence on the functional results obtained, especially in fractures in the vicinity of joints. If a joint is involved and the fragments are not approximated, we must expect limitation of motion. Passive motions to overcome these limitations are useless. It is better in these cases to pin the fragments in place, or to incise and replace or remove them. If the fragments are well approximated and the joint is kept quiet, the callous is kept at its minimum. The joint soon limbers up, after removing the restraining bandages.

Early massage of the fractured parts, beginning with a slight effleurage, will prevent inflammation and effusion in the soft parts, and will enable the limb to resume its function as soon as union of the bone has taken place. Treatment by restraining splints and massage should be combined.

Fractures with little or no displacement can be immediately put in well padded splints. In cases with redness and swelling, a wet dressing

(glycerine and water, equal parts) may be desirable before putting the splint on.

The method of using ambulatory dressings for fractures of the leg is only indicated in selected cases.—(*Annals of Surgery*, May, 1904, G. G. DAVIS.)

**Foreign Body in a Bronchus.**—This was removed by an electro-magnet. An upholsterer got a tack into one of his bronchi. The position of the foreign body was determined by the X-ray. With the aid of an electro-magnet, and a bronchoscope, the tack was removed.—(*Gazette des Hospitaux*, 1903. 148 LERMOYEZ.)

**Gastric Dilatation and Tetany.**—The gastric dilatation in these cases is usually caused by benign pyloric obstruction. The attacks of tetany most commonly follow severe vomiting; less frequently after introducing a stomach tube, or after stomach lavage.

The first symptom is pricking and numbness in the hands. Later tetanic contractions appear in hands, arms and legs, and occasionally in the face. Transitory blindness has been recorded. The patient may remain conscious or become delirious. Attacks last from a few minutes to several weeks. The prolonged cases are usually fatal.

Several theories have been presented to explain the cause of gastric tetany. One claims that the loss of fluid from the body in consequence of the frequent vomiting is responsible for the tetany. Another explains tetany as a reflex action produced by stimulation of the sensory nerves of the stomach. A third theory depends upon the presence of an auto-intoxication arising from prolonged and abnormal chemical processes in the dilated stomach.

The prognosis of gastric tetany is very grave. The mortality is 70 to 80 per cent.

The treatment is, first, medical: lavage of the stomach and controlment of the tetanic spasms, by ice, tepid bath, bromides, morphine, etc.; second, surgical; removal of the pyloric obstruction by pyloro-plastic or gastro-enterostomy. Eight cases of gastric tetany are on record, treated surgically, with three deaths and five cures. To these eight cases, the writer adds one of his own, which was entirely cured by a gastro jejunostomy.—(*Annals of Surgery*, April, 1904. F. H. Cunningham, Jr.)



## GYNECOLOGY AND OBSTETRICS.

Under the charge of

B. R. SCHENCK.

**Papilloma of the Ureter.**—Primary tumors of the ureter are rare. Mackenrodt reports the case of a woman, aged 60, who had suffered for some months with pain in the right side and hematuria. The blood being intimately mixed with the urine, it was thought that the hemorrhage was renal, but on cystoscopic examination, a papillomatous mass was seen projecting into the bladder from the orifice of the right ureter. The tumor, which proved to be a papilloma, was removed through an abdominal incision, 5 centimeters of the ureter being resected and the cut end implanted into the bladder. Convalescence was uninterrupted, no leakage of the anastomosis occurring.

For operations on the bladder, Mackenrodt advocates a U shaped incision, with the convexity downward, the recti muscles being detached from the symphysis. A transverse, instead of a longitudinal incision, into the bladder is also recommended. (*Zeitsch. f. Geb. u. Gyn.* Bd. 1., Hft. 1, 1903.)

**Ovarian Cyst. Reduction of Twisted Pedicle.**

—Porter reports an interesting case of ovarian cyst with twisted pedicle, in which three strangulations of the cyst were relieved by manipulation. A woman, aged 35, had complained for two years of pains in the back and discomfort in the pelvis but had been in fairly good health until Dec. 23, 1903, when she was seized with a sudden sharp pain in the right iliac region. A lump, the size of an orange, here appeared, but after massage and manipulation it vanished and the pain subsided.

On Jan. 5 she had another attack, similar to the first, and again on Jan. 11 there was a still more severe attack, pain being continuous and vomiting a marked symptom. On examination, a globular tumor the size of a grape-fruit was found in the hypogastrium. This was very mobile and could be made to take almost any position in the abdomen, not without causing considerable pain, except when in the right ovarian region. In each of the attacks, the symptoms disappeared after manipulation of the tumor.

At operation, an infarcted ovarian cyst, purple in color, tense and shiny, was found to spring from the right broad ligament. The pedicle was twisted  $1\frac{3}{4}$  times toward the median line. A tumor the size of an orange was also found on the left side. Recovery was satisfactory. (*Boston M. and S. Jour.*, Apr. 7, 1904.)

**Prophylaxis of Post-operative Cystitis.**

Baisch quotes, from the various German clinics, the statistics on cystitis following the Wertheim operation (combined abdominal and vaginal hysterectomy for carcinoma) showing that it

is very common and not an infrequent cause of death, through an ascending renal infection. Cystitis is favored by the retention of the urine which is caused by the destruction of the blood and the nerve supply to the bladder, and its rational prophylaxis is frequent catheterization and irrigation. Boracic acid and protargol solutions are recommended.

Since the institution of this treatment, there was not a single instance of post-operative cystitis in a series of 31 hysterectomies done by the Wertheim method, yet only one was able to urinate spontaneously from the first. Even after voluntary micturition is restored, it is at first incomplete and the catheterization and irrigation must be maintained until full control, with power to completely empty the bladder, is obtained. (*Zent. f. Gyn.*, 1904, Nr. 12.)

**Ureteral Catheterism in Diagnosis.**—Van der Poel believes that catheterism of the ureters is not in any way harmful, unless it is done through a diseased bladder. Comparing this method to others, he gives the following advantages:—

The cystoscope is more easy of introduction than are the separators or segregators, is less painful during the bladder manipulations and much less so during the collection of the urines. Hence as a rule:

With ureteral catheterism we can collect the urines during as long a time as may be thought necessary, the patient not requiring any supervision.

A cystoscopic examination of the bladder can be made at the same time, which, in some cases, is useful, in others, indispensable.

We are much more certain of the exact results, especially when the two urines are of a similar character, whether clear, bloody or purulent.

It is the only method by which we are fairly certain that there is no bladder contamination. (*N. Y. Med. Jour.*, April 16, 1904.)

**Yeast Treatment of Gonorrhea.**—Following up his chemical and bacteriological investigations, Abraham obtained excellent results in a series of 40 cases of gonorrhœa in women, from the use of vaginal suppositories prepared from yeast, asparagin and gelatin. He believes the action is chemical, rather than in the nature of an enzyme, the products produced by the growth of the yeast cells, apparently destroying or inhibiting the development of the gonococci and benefiting thereby infections of the vulva, vagina and uterus. It has no effect upon infections of the tubes, except by preventing reinfection. (*Monat. f. Geb. u. Gyn.*, Bd. xvi. Hft. 6.)



## PHARMACOLOGY AND THERAPEUTICS.

Under the charge of

W. J. WILSON, JR.

**Constipation.**—In undertaking the treatment of constipation, the first aim should be to discover if possible the cause. This may be done upon the general principles of diagnosis, either by induction or exclusion. If no organic trouble of any kind is discoverable, all purgative measures are discontinued tentatively. The diet should contain vegetables, cereals, fruits, and an abundance of fats. Stewed fruits are useful, and raw apples, figs, oranges, etc., assist the general treatment. Cold water in preference to hot, is directed to be taken, one glassful before breakfast and two on retiring. Exercise according to the opportunities and ability of the patient, as far as possible outdoors, is very useful. Massage of the abdomen, preferably done by a masseur or otherwise, using the so-called massage-roller, is recommended.

Fleiner, of Heidelberg, considers oil injections a valuable addition to the therapeutics of constipation. The patient is directed to inject through a piston syringe from two to four ounces of sweet oil, which has been warmed to body heat by placing the containing bottle in a vessel of hot water. The injection is given at bed time, and the oil is retained in the rectum all night. In the morning a bowel movement usually occurs. A fountain syringe should not be used, as the rubber soon wears out, and the oil flows too slowly to suit the patient. Hard rubber, glass or metal syringes answer the purpose best. Glass is the neatest, and metal the cheapest. There are, however, cases that do not yield to any of these measures, but, before returning to drugs, the use of the ether spray, recommended by Boas, is advocated. About 100 grammes or 3 ounces of ether are sprayed on the bare abdomen through an ordinary atomizer. This procedure is repeated every two or three days, according to the necessities of the case. The cold produced by the evaporation of the ether acts as a powerful stimulant to peristalsis. When the abdomen is pendulous or when there is diastasis of the recti muscles or floating kidney, a properly made abdominal binder is of great value.

As for drugs, the cascara preparations are usually the most efficient, and the bitter mineral waters are valuable. Eserine, or physostigmine, which has the property of stimulating unstriated muscle, Riesman prophesies, will hold a prominent place. It is usually given in the form of the salicylate in doses of 1-60 of a grain three times a day, either hypodermically or by mouth. The value of strychnine in intestinal atony and constipation needs no special emphasis. (*Therapeutic Review*, Feb., 1904, RIESMAN.)

**Dangers in Potassium Chlorate.**—Bartholow calls attention to the danger of mistaking potassium chloride and potassium chlorate. As to the latter drug, he concludes that while various laboratory observers have come to the conclusion that it is harmless, still no one of any practical experience can doubt that potassic chlorate may profoundly alter the composition of the blood, and that this alteration may take place suddenly, and after comparatively small doses. In several cases a small dose when taken on an empty stomach has caused death. (*Journal A. M. A.*, April 23, '04.) Cushny, in his well-known text-book, says that the cause of the symptoms in acute and subacute chlorate poisoning is, apart from the salt action, a specific effect which the chlorates have on the red blood cells and particularly on the hæmoglobin. This is seen especially when blood is added to a chlorate solution outside the body, for in the course of a short time the blood assumes a dark chocolate color, and spectroscopic examination reveals the absorption bands of methæmoglobin and often of hæmatin. After a time the red blood cells tend to break up, and the methæmoglobin is freed in the serum. Jaundice is a symptom that sometimes results from the hemolysis. The writer of the abstract has seen one such case resulting from the indiscriminate use of the tablets which had been purchased at a drug store and used ad libitum. The symptom of jaundice was not excessively marked but was present. It soon passed off with the stoppage of the drug. More care should be thrown around the dispensing of this drug than is usually done.

## DERMATOLOGY AND SYPHILIS.

Under the charge of

A. P. BIDDLE.

**Early Inoculated Tuberculosis.**—A case of early inoculated tuberculosis of the cheek in a child, aged four years, was recently presented before the Dermatological Society of Great Britain and Ireland. In the center of both cheeks there were patches of tubercular infiltration, the size of a shilling in the case of the larger and older patch on the left cheek, the size of a sixpence in the case of the smaller patch on the right cheek. The older lesion had appeared two years and the more recent one a year previously. The symmetry was peculiar and suggested a common cause for the two lesions, such as the infection by the saliva of a tubercular patient, probably by kissing. The many cases of infection of the wound of circumcision by the saliva of the operating priest in the Jewish ritual gave a complexion to this theory, which derived some support from the history of the case. A young maternal uncle had lived in the house with the patient, and had died of phthisis at the age of nineteen, fifteen months previously. The mother had lost an earlier child by another father of phthisis several years ago.—(*British Journal of Dermatology*, April, 1904.)

**Papilloma of the Sole.**—In recording his personal case, Dr. T. D. Berry, Assistant Surgeon U. S. Public Health and Marine Hospital Service, refers to the rarity of the literature on the subject and yet to the frequency with which such cases are met with among chiropodists. Warts in other situations are treated at some length, but not much has been written about those occurring on the sole of the foot, where, because of their anatomical position, their root or base is deeper, they are subject to more irritation, and are, therefore, more painful and are harder to get at and to treat than in any other situation. In Dr. Berry's own case the lesion, which he at first supposed to be an unusually sensitive corn, was situated about opposite the head of the second metatarsal bone of the left foot. It returned promptly after trimming, after the use of nitric acid and the first use of the galvanocautery. The outgrowth from the wart was rapid and the counter pressure from the shoe flattened it out as it would come to the sur-

face. This flattened portion would become the size of a split pea in two weeks, could be easily lifted from the skin underneath and cut away at the narrow base level with the skin. The root, whose stroma was slightly translucent, thus being in contrast with the surrounding skin, was also faintly pink from small blood vessels. The root dipped straight down through the thick sole. The wart acted like a foreign body, keeping up a constant irritation in that part of the foot, which was painful on pressure and slightly swollen above the surrounding tissue.

Finally every vestige of the wart was removed by the Paquelin cautery, by burning entirely through the skin of the sole and into the fatty cushion beneath. There has been no return for six months.—(*Journal of Cutaneous Diseases*, May, 1904.)

**Rare Bromide Eruption.**—Dr. Lotta W. Myers reports a case of rare bromide eruption in an infant, female, six months old. December 2, 1903, potassium bromide in 2-grain doses was given every three hours for a slight intestinal disturbance. Two days later rash appeared resembling varicella, which continued to appear and develop, though the bromide was at once stopped. By December 15th lesions, in various stages of development, were on the scalp, forehead, both cheeks, the legs from the ankles to the knees and the buttocks. The new ones were small, yellowish vesicles; others were discrete, rounded, semi-firm, of various sizes, with distinct, sharply defined edges and a flat, uneven, prominently raised surface in which were numerous minute pustular points. Those on the cheek were confluent and later covered with a brownish crust. One lesion appeared on the tongue and four weeks after the drug was given a few new ones appeared on the thighs, but these did not run the full course.

Points of interest in the case: Small amount of bromide given; height of eruption not reached until eleven days after discontinuance of the drug; continuance of lesions for four weeks; lesion on tongue; absence of irritation or itching.—(*Journal of Cutaneous Diseases*, May, 1904.)